

Radio **AMATEUR** Call Book Magazine

\$1.00
Foreign
\$1.10



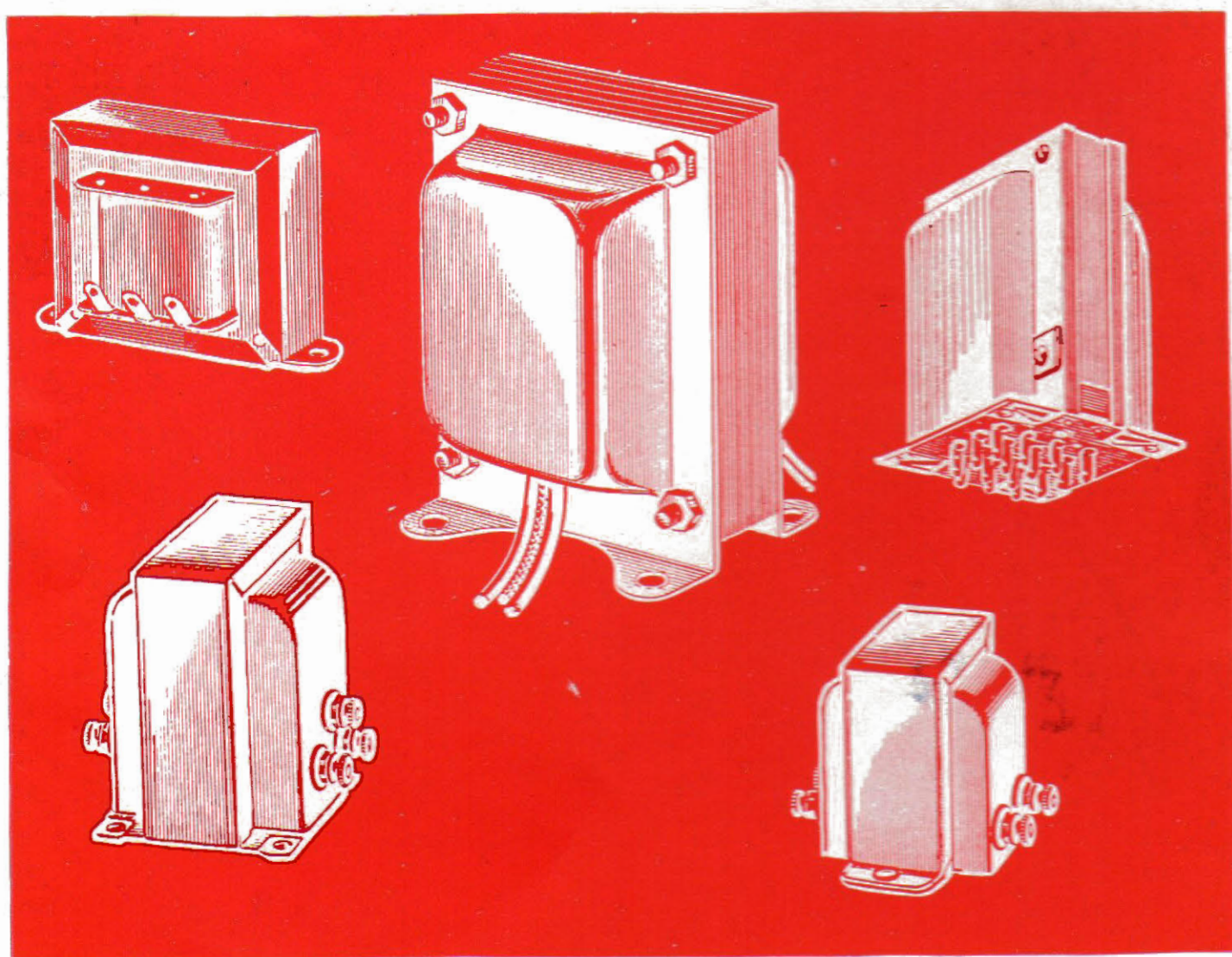
SPRING 1933

You asked for them—so here they are

STANCOR

Class "B" & Filament

TRANSFORMERS



Class "B" and Filament Transformers bearing the Stancor trade mark assurance of dependability were asked for so often, we finally decided to include a complete line of these units in the Stancor Products.

Even then, it took time to develop just the units you'd want, made as you want them made . . . good-looking, good-performing . . . as good as Stancor Exact-Duplicate Replacement Transformers.

And now here they are . . . laboratory developed . . . engineeringly produced to precision standards . . . free of even

the slightest variations from laboratory specifications . . . certain to function right up to your most exacting requirements and highest expectations.

Like Stancor EXACT-DUPLICATE Replacement Transformers, you can get them from authorized Stancor distributors all over the United States, Canada and our Island possessions.

Your distributor has the new catalog sheets showing the complete line. Ask him for the copy you want or write this office if he is out of them.



STANDARD TRANSFORMER CORPORATION
865 BLACKHAWK STREET CHICAGO, ILLINOIS

Hi, there! All you Hams and Brass Pounders

CHI-RAD still leads 'em all for HIGH QUALITY • LOW PRICE!



Never a compromise with quality . . . never any hesitancy in slicing prices to the lowest possible level. That's why CHI-RAD has grown and grown until it's the favored source of supply for everything the wise Ham wants and needs. CHI-RAD'S big catalog illustrates and describes a great line of parts and equipment. Get it TODAY!

Look at these Few Selections from Chi-Rad's Line



NATIONAL "FB-7"

Amateur Type
Short Wave Receiver

Outstanding Features:

High Selectivity and Sensitivity
Electron Coupled Oscillators—No Frequency Drift
Uniform Gain over Entire Frequency Range
Double Shielding
Absolute Single Control Tuning—No Trimmer
Two I. F. (High Gain) Stages
New NATIONAL Type AGS Litz-wound I. F. Transformers with trimmer adjustments on top
Tuning Curves on Front Panel
Gain Control Calibrated in "R" Units
High Signal to Noise Ratio
One-Hand Tuning
Front of Panel Coil Change
Shielded "R39" Coils Changed from Front of Panel
S. F. L. 270° Tuning with Full Vision Velvet Vernier Dial
Seven Tubes without Rectifier
Panel Switch for cutting B Voltage during Transmission
Band Spread and Full Range Coils
Amateur Bands Spread over 100 Dial Divisions
Full Range 20 m.c. to 1500 k.c.
"Offset" c.w. Beat Tuning
Beat Oscillator Switch on Panel
Phone Jack in 2nd Detector Output Circuit
Speaker Driven by '59 as Class "A" Pentode
Mechanical Filter (Quartz Crystal) Available for Full Single Signal Reception
"Doublet" or standard type Antenna System

Net Cash Prices as Follows:

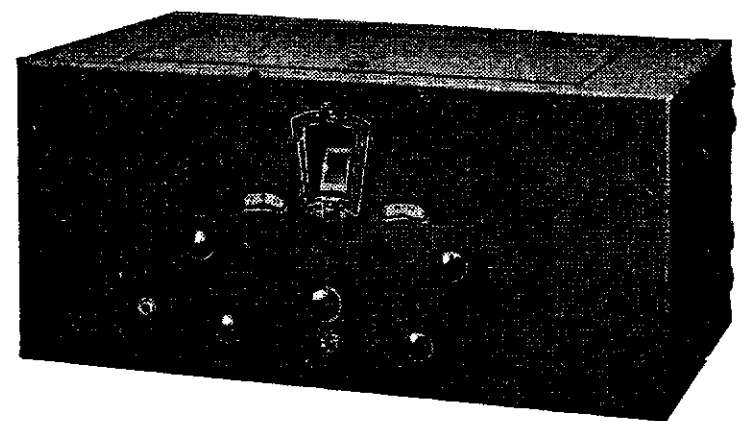
FB-7 Receivers Only.....\$26.46
Set 7 RCA Tubes..... 6.44
Coils, Any Band, Per Pr.... 5.88
Power Pack No. 5887AB.... 14.40
Power Pack No. 5897AB.... 20.30

NEW LOW PRICE NATIONAL SW-3 RECEIVER!

We can now offer you the very latest type SW-3 less coils for, net.....\$14.40
Band Spread Coils per pair, net..... 3.82
Regular Coils per pair, net..... 2.94

PARTS

CHI-RAD can supply you—at lowest prices—complete parts for any circuit described in Radio Amateur's Handbook as well as other outstanding new circuits as they are developed and featured in leading radio publications.



HAMMARLUND Comet "PRO" Receiver

The newest model of this famous receiver, chosen by many amateurs and professional operators and in use by airlines, governments, news services and others who must have absolutely dependable service, features improvements that make it a more outstanding performer than ever. Truly brings the whole wide world inside your home with its phenomenal sensitivity and selectivity—which is still easily controlled by its simple band-spread system. Shielding is more effective than ever, and added features include manual tuning control on beat oscillator, and intermediate transformers tuned by air condensers, adjustable from top. If you want outstanding performance—and want it at the most advantageous price—send to CHI-RAD at once for all particulars regarding this new Hammarlund Comet "PRO" as listed in the big, complete CHI-RAD Catalog.

Send NOW for the Big, Money-Saving CHI-RAD Catalog

Trying to "get anywhere" in radio without the complete CHI-RAD Catalog is like trying to tune in London on a \$5 midget. If you want to have more fun out of your hobby—learn more from it—and become a really proficient "ham"—get the CHI-RAD Catalog and keep up to date on all parts and equipment while you keep costs within your easy reach. Send the COUPON for it RIGHT NOW!

CHICAGO RADIO APPARATUS CO., Inc.
415 S. Dearborn St. Dept. C.B. 133 Chicago, Ill.
Established 1921—Phone, HARRison 2276

CHICAGO RADIO APPARATUS CO., INC.
415 S. Dearborn St., Dept. C.B. 133
Chicago, Ill.

Please send me at once a copy of your Big, complete Catalog. I enclose 10c to partially cover cost of preparation and mailing.

NAME.....
ADDRESS.....
TOWN.....
STATE.....

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

RADIO AMATEUR CALL BOOK MAGAZINE

(Registered at U. S. Patent Office)

Vol. 14

March, 1933

No. 1

Published March, June, September, and December, by the

RADIO AMATEUR CALL BOOK, Inc.

Executive and Publication Offices: 608 South Dearborn Street, Chicago, Ill., U. S. A.

Telephone—Wabash 1903

A. C. BATES, Editor

D. A. SCHROEDER, Circulation Mgr.

Western Representative

DON C. WALLACE

4214 Country Club Drive, Long Beach, Calif.

THIS IS THE OFFICIAL CALL BOOK OF THE RADIO SOCIETY OF GREAT BRITAIN, AND IS
USED BY THE U. S. NAVAL RESERVE, U. S. ARMY—AMATEUR RADIO SYSTEM, THE AMERICAN
RADIO RELAY LEAGUE, AND AMATEUR ORGANIZATIONS IN ALL COUNTRIES

Contents for March, 1933, Issue

United States—W1.....	17
W2	32
W3	47
W4	57
W5	63
W6	72
W7	94
W8	103
W9	127
High Frequency Commercial Stations.....	157
Foreign Amateurs, by Countries.....	165
International Abbreviations and Signals.....	212
"Q, R, & T Systems" for Reporting Signals.....	213
Amateur Prefixes	214
U. S. Postal Rates on Cards and Letters.....	214
New U. S. Radio Inspection Districts.....	216
FULL PAGE MAP OF NEW DISTRICTS.....	217
High Frequency Press, Time and Weather.....	218
Short Wave Broadcast Stations.....	220
Where to Buy the Amateur Call Book.....	221
Who's Who on Short Waves.....	224

Copyright, 1933, by Radio Amateur Call Book, Incorporated

Requests for permission to reprint any material contained in this publication
must be made to the Executive Offices

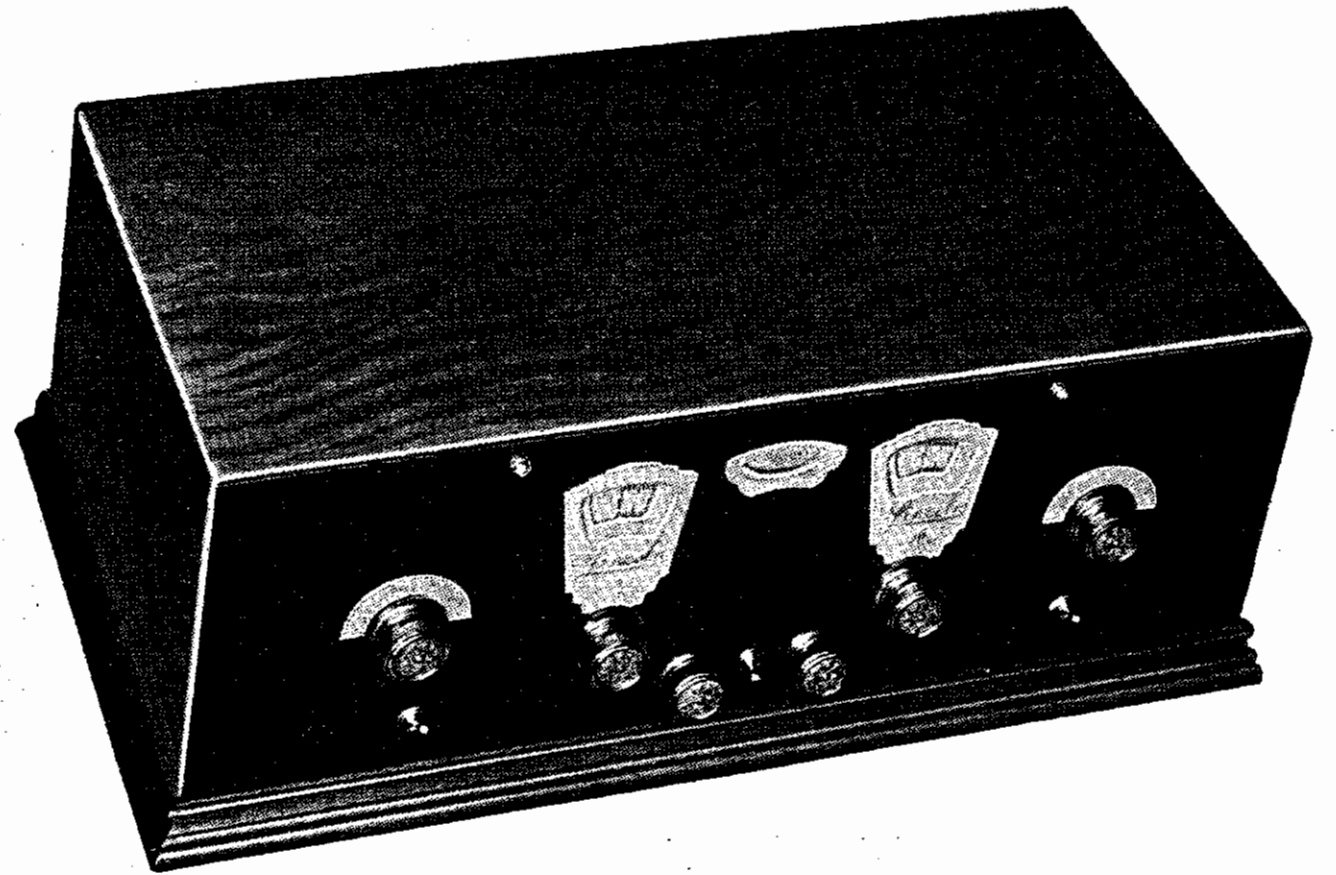
The Radio Amateur Call Book Magazine is published quarterly — March, June, September and December. Yearly subscription \$3.25 in U. S. and possessions, and countries in the American Postal Union. In Canada and countries not in the A. P. U., \$3.50, postpaid. Single copies \$1.00. (Canada and countries not in the A. P. U., \$1.10, postpaid.) Entered as second class matter June 7, 1928, at the post office at Chicago, Illinois, under the act of March 3, 1879.

BY POPULAR DEMAND • We Announce

THE LINCOLN R-9

**COMMERCIAL
TYPE
RECEIVER**

9 TO 200 METERS •



CUSTOM BUILT and LABORATORY TESTED

**Super Power for Unlimited Range.
Three High Gain Stages of Inter-
mediate Frequency (duplex
tuned Litz wire).**

**Two Stages Push Pull Double Rec-
tifying Detector.**

Perfect A. V. C. Action.

Band Spread All Bands

C W Beat Oscillator.

Signal Indicator.

Silent Tuning.

High Volume Without Distortion.

Automatic Sensitivity Control.

Highest Practical Sensitivity.

Extreme Selectivity.

**Marvelous Tone (2—'45 tubes
push pull).**

Superheterodyne Circuit

10 Tuned Circuits

Tubes: 4—'58.

3—'56.

2—'45.

1—Wunderlich.

1—'80.

Repeated requests from commercial operators, communication systems and broadcasting stations prompted months of research work on the new Lincoln R 9 receiver. The proven merits of Lincoln super-power all wave receivers are known the world over. They have stood the acid test in the hands of hundreds of the most critical engineers and individuals, and in the hands of the MacMillan Polar Expedition, the first time any explorer had daily contact between the Arctic and Chicago.

When we announced our first superheterodyne receiver six years ago, it was the sensation of its day—it had features entirely new to radio.

AGAIN! LINCOLN'S FIRST COMMERCIAL RECEIVER IS CREATING JUST AS MUCH SENSATION.

Expert operators have tuned the R 9 and have been amazed at the power and sensitivity. They could not suggest one single improvement we could make. Capitalizing on the years of successful development of high powered, hand built receivers which now grace the finest homes in this country; in the Lincoln R 9 we have utilized every bit of this design and added every feature you could want for reception of voice and code signals.

Utilizing the modern tubes in the new highly engineered circuit puts in your hands the most sensitive and selective receiver you have ever worked with.

QRM—reduced by extreme selectivity.

QRN—reduced thru balanced twin grid action of detector tube.

FADING—eliminated by perfect AVC action.

Automatic rising sensitivity on weak signals.

Automatic rising curve of handling on strong signals (can be brought up to tremendous volume without overloading).

The chassis is of heavy gauge metal, with removable top highly finished in photo process grain walnut. Front panel finished in black leatherette with silver appointments. Chassis mounted on a walnut finished wood base. Power equipment is identical in all specifications with the power pack used for the Lincoln DeLuxe SW-33, and is interchangeable. Speaker is of the dynamic type, capable of handling the high amplification of the R 9, and can be supplied in a walnut table mounting speaker cabinet if desired.

Commercial and radio amateurs write at once for free complete information, and confidential discounts to operators. When writing give call letters of station.

LINCOLN
DeLuxe Receivers

LINCOLN RADIO CORPORATION
Dept. A—329 S. Wood St., Chicago, Ill.

NAME.....

ADDRESS.....

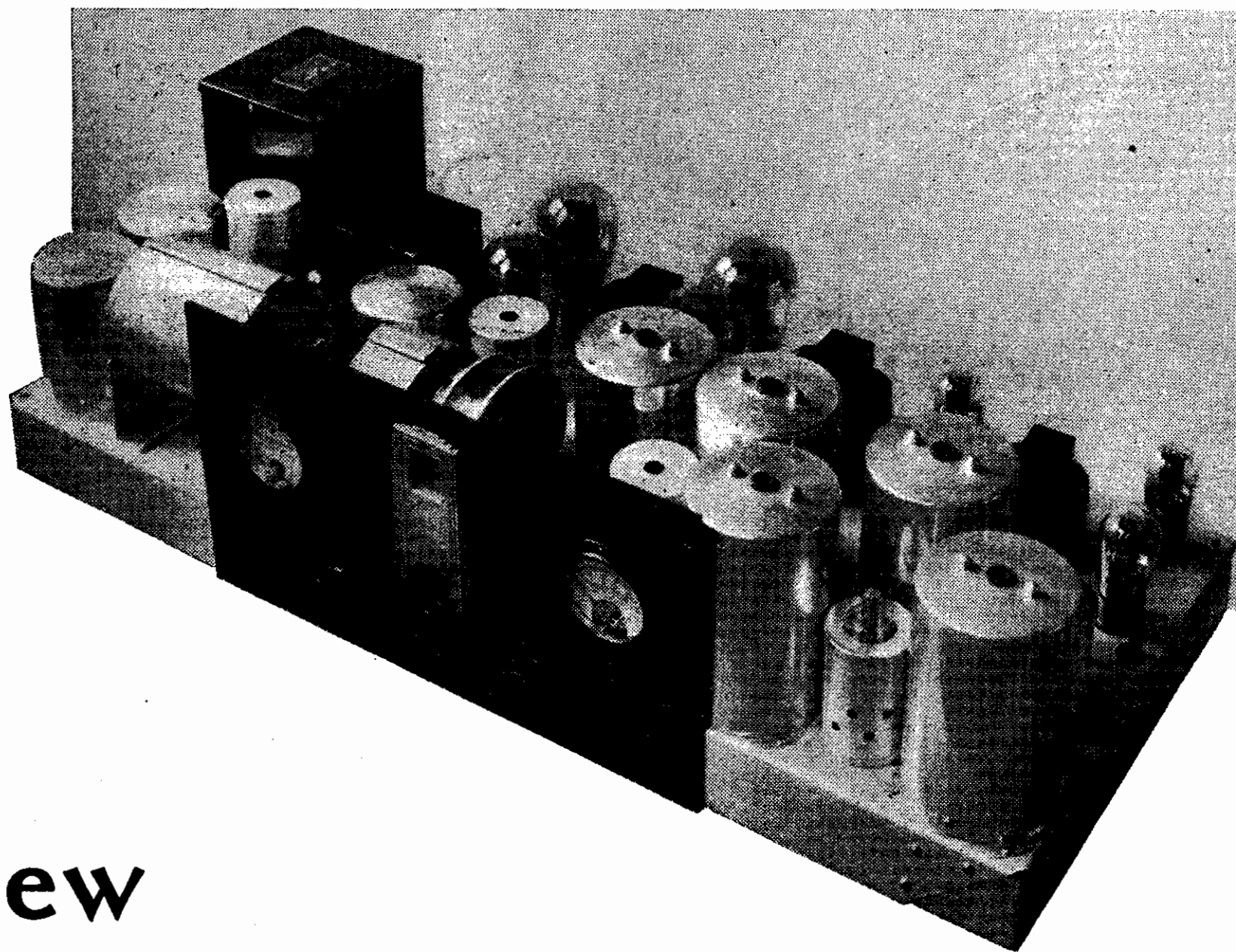
TOWN.....

STATE.....

STATION CALL LETTERS.....

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

NORDEN-HAUCK—Announces



The New Admiralty Super-15

MULTI-WAVELENGTH SUPERHETERODYNE

A NEW ENGINEERING TRIUMPH

16 of the latest type tubes are used in the ADMIRALTY SUPER-15. Smashing power with keenest selectivity and complete tone fidelity are the outstanding features of this new and advanced Receiver. A precision laboratory instrument. Reliable performance guaranteed. Navy style construction.

No longer is radio reception restricted. The New Norden-Hauck Admiralty Super-15 opens up a vast new world of entertainment. Hear the voice of the tropics . . . music of strange native instruments . . . foreign tongues; a twist of the dial and swing from Australia . . . the bottom of the world, to Java, Siam . . . the intangible, mysterious spell of the Orient. Another change . . . and there! London . . . and now to Paris, Berlin, Rome, Madrid . . . the world is actually at your fingertips. This is the real *Romance of Radio*.

The Admiralty Super-15 is the finest instrument Radio Engineers have yet conceived. It offers *super-sensitivity* to bring you the programs on the air; *super-selectivity* to bring you the one station desired, excluding all others; *super-tone* quality to bring you the program just as it originates at the broadcasting station.

Complete literature sent on request. Address

NORDEN-HAUCK ELECTRIC & MANUFACTURING CO.

402 Cherry Street, Philadelphia, Pa., U. S. A.

“Builders of the Highest Class Radio Apparatus in the World”

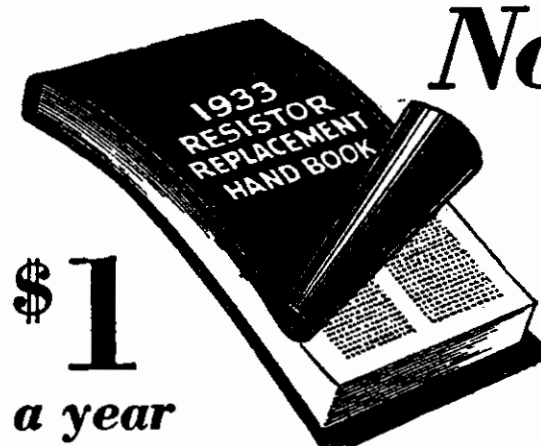
Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

Whatever Your Interest in Radio; ● ELECTRAD CAN HELP YOU!

WHETHER you are a radio amateur, professional, experimenter, or do service work you should be familiar with ELECTRAD devices. The name "ELECTRAD" on a Resistor, Volume Control or Amplifier means that the reputation, experience and engineering skill back of it are your assurance of absolute satisfaction.

Mail Coupon for Complete, New Catalog. Yours for the asking.

1933 HAND BOOK Now Ready!

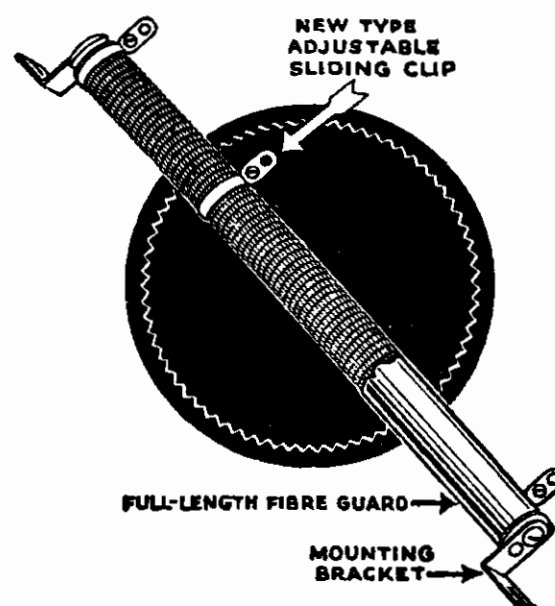


\$1
a year

Although the 1932 ELECTRAD Hand Book was considered the last word by its more than 10,000 users—the new 1933 edition is BIGGER, BETTER, MORE COMPREHENSIVE. It lists in easy readable form, full data on all resistors (including carbons) and volume controls—indispensable information for the busy service man or experimenter. The \$1 subscription includes three supplements, as issued. Send your dollar NOW!

SATISFACTION GUARANTEED OR MONEY RETURNED AFTER 10-DAYS' TRIAL.

TRUVOLT the Safe RESISTOR



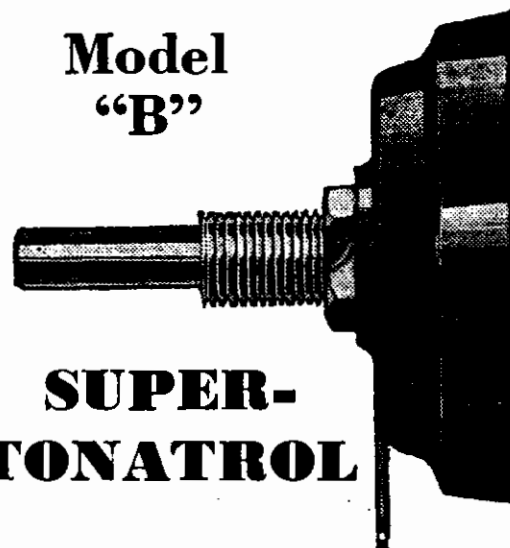
- 1—Patented construction permits air-cooling, larger wire, greater radiation and longer life.
- 2—Spiral winding assures better electrical contact.
- 3—Sliding clips provide accurate adjustment to exact voltages. 1,000 volt insulation.
- 4—Full-length fibre guard prevents injury from contact with tools and hands.

Only TRUVOLTS Have These Features

Built on an entirely new principle, without wire. Uncanny quietness, smooth operation and long life. Excellent attenuators in transmitting applications; also for controlling regeneration in short-wave receivers.

Single and dual types. 9 models. 500 to 100,000 ohms. \$2.40 to \$3.00.

Model
"B"

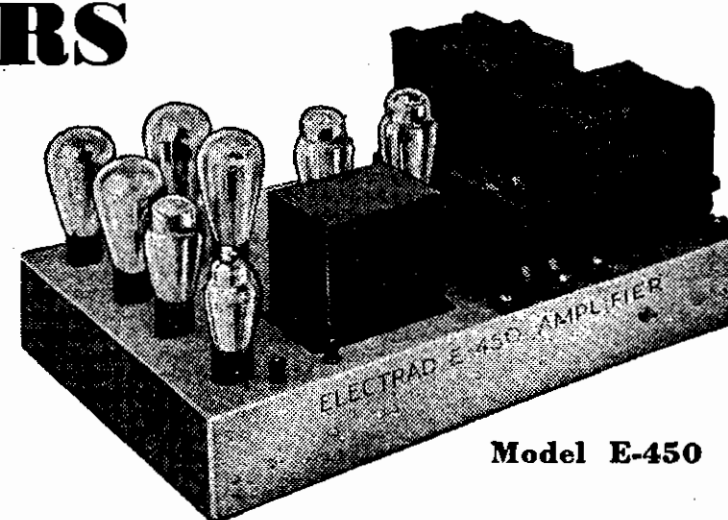


SUPER-TONATROL

AMPLIFIERS

For Every Purpose

Famous direct-coupled circuit. Economically operated, compact, rich toned. Four models, ranging from 1.4 to 21.9 watts of undistorted power output. \$32.50 to \$195.00, less tubes.



Model E-450

Wire- Wound



Transmitter GRID LEAKS

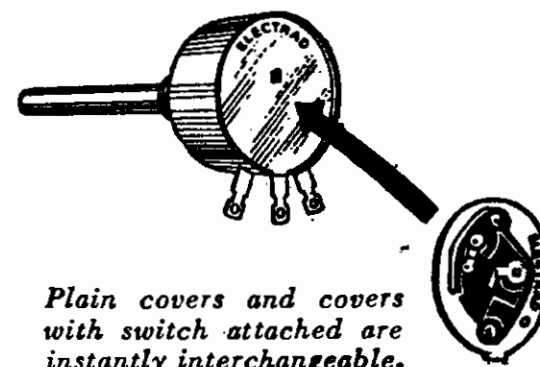
Unique construction, with more wire of larger diameter in small space. Liberally insulated. Lugs and contact bands of Monel metal—insuring uniform expansion and positive connections. Covered with moisture-proof enamel. Guaranteed not to develop noise or open circuits.

Three sizes (190, 90, and 40 watts) and nine resistance values from 10 to 100,000 ohms. Tapped for all usual needs—\$1.50 to \$6.00.

Replacement VOLUME CONTROLS

ALUMINUM Shafts
Snap-on SWITCH

Long ALUMINUM shafts easily cut to desired length. Standard end cover may be instantly replaced by power-switch assembly, without disturbing control connections. Two new features, which save time, labor and money.



Plain covers and covers with switch attached are instantly interchangeable.

175 Varick St., New York, N.Y.
ELECTRAD
INC.

ELECTRAD, INC., 175 Varick St., New York.

Please send me free copy of your complete, new catalog of Resistors, Volume Controls and Amplifiers.

Name.....

Address.....

AC-3

HARRISON RADIO CO.

★ QUALITY
★ MERCHANDISE

★ LOWEST
★ PRICES

★ REAL
★ SERVICE

★ EVERYTHING
★ GUARANTEED

FOR THE PAST EIGHT YEARS—

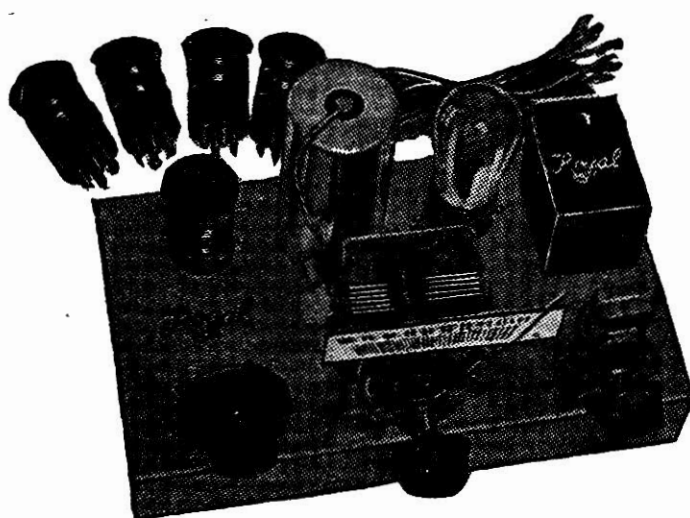
we have been supplying radio apparatus to "hams" and commercial "ops" in all parts of the world. Beginners and old-timers alike know that they can buy everything they need from Harrison's and save money without sacrificing quality or service!

Being hams ourselves, we know just what apparatus is suitable for amateur use and we render you INTELLIGENT SERVICE! Send us your orders and be convinced!

REACH OUT! WITH A ROYAL SHORT WAVE RECEIVER

Amateurs everywhere have discovered that Royal Short Wave Receivers are the ideal ham receiver!

The fine tuning made possible by the dual ratio, full vision dial—the wide spread of the amateur band coils—the smooth regeneration control—the great efficiency resulting from the use of



"TRANS-X" Coupling (Pat. Pending)—the use of modern screen grid and pentode tubes—and many other features of merit carefully and correctly combined by experienced Royal engineers, make these remarkable receivers the only logical purchase for the discriminating amateur.

Using the regular coils the short wave enthusiast can sweep the globe and pull in stations in all parts of the world. Actual letters in our files verify consistent world-wide reception of both code and phone stations from every continent, mostly with loud speaker volume!

The use of a screen-grid detector (43 to 166 times the gain of the ordinary triode) and a power audio amplifier with "TRANS-X" Coupling give a sensitivity and volume that is amazing.

Solidly assembled on a heavy metal chassis and fully enclosed in a neat crystal finished metal cabinet with hinged top, the receiver is totally shielded, eliminating body capacity and inter-coupling and is protected from dust and damage.

Each receiver is supplied with four coils covering from 14 to 200 meters or with band spread coils for the 20, 40, and 80 meter amateur bands. (Coils are interchangeable. Both sets of coils \$3.53 extra.) 200 to 550 coil \$1.17. 160 meter coil \$1.17.

These receivers are also supplied in KIT form for those who wish to "ROLL their own." Clear instructions make wiring a simple matter. You learn and save!

Battery operated models use the economical 2 volt tubes and require 135 volt B, 13 1/2 volt C, and 2 volt filament supply. Complete set of Batteries \$3.95. AC models plug right into 110 volt 60 cycle line. (Other voltages available.)

It is our honest belief that these Royal short wave receivers are superior to all others in the same price class and compare favorably with sets commanding much higher prices. We guarantee these receivers to outperform any other set!

Order your ROYAL TODAY and be convinced!

ROYAL STAR

(The famous Model RP)

A two-tube with a sterling pedigree. This remarkable receiver is not to be confused with poorly designed sets cheaply thrown together to sell at "bargain" prices! Uses one type 232 super-sensitive detector and a type 233 power pentode. List Price, \$25.00.

SPECIAL..... \$14.70
Complete Kit..... \$11.76
Set of ROYAL Short Wave Tested Tubes.... 2.55

AC STAR

Uses one of the new type 58 super-control screen grid pentodes, a 247 pentode audio amplifier, and a 280 rectifier. Especially designed for humless, quiet operation on Short Waves. Ready to plug into AC line.

List Price, \$40.00. SPECIAL..... \$23.52
ROYAL Tested Tubes..... \$2.15

ROYAL CHIEF

A knock-out three-tube set embodying all the well known features of the STAR, plus a stage of high gain type 232 screen grid radio frequency amplification.

List Price, \$30.00. SPECIAL..... \$17.64
Complete Kit..... \$14.70
ROYAL Tested Tubes..... 3.75

AC CHIEF

THE AC STAR with an additional type 58 used as screen grid radio frequency amplifier.

List Price, \$45.00. SPECIAL..... \$26.46
ROYAL Tested Tubes..... \$2.95

ROYAL OLYMPIC

A four-tube receiver that shatters all records for performance, quality, and price! Utilizing the basic structure of the ROYAL STAR, it incorporates a high gain screen grid R.F. amplifier stage and an additional booster Class A audio amplifier tube for super dynamic power. A separate control to modulate the signal down to any desired level is another feature. Uses two 232, one 230, and one 233 tubes.

List Price, \$35.00. SPECIAL..... \$20.58
Complete Kit..... \$17.64
ROYAL Tested Tubes..... 4.50

AC OLYMPIC

A De Luxe AC operated receiver employing two 58, a 56, a 47, and a 280.

List Price, \$50.00. SPECIAL..... \$29.40
ROYAL Tested Tubes..... \$3.60

HARRISON SPECIALS

Every item an outstanding bargain! You get more for your money at Harrison's.

An excellent high inductance choke, to provide maximum filtering in any power pack. Consists of a 50 Henry 100 Mil and a 30 Henry, 125 MA choke in a silver finished metal case. In parallel will handle 200 MA and still have high inductance. No choke as good as this one has ever been offered at the low price of (7 lbs.)..... \$1.45

SEND FOR [CATALOG]

H-H 20,000 ohm, 50 watt Bleeder resistors with 4 taps. Put two in series for up to 40,000 ohm at 100 Watt with 9 taps. Two for 93c. SPECIAL..... 55c
ZENITH POWER TRANSFORMER. 200 watt. Delivers 750 volts and 7 1/2, 7 1/2, and 2 1/2 volts. Open frame mounting. 8 1/2 lbs..... \$2.75

GENERAL ELECTRIC METERS

Jeweled D'Arsonval movement with zero adjuster. 3" diameter. Panel Mount. Every one brand new! A rare opportunity to buy genuine G. E. meters at bargain prices. Supplied with shunt wire and simple instructions to make into any range DC Milliammeter. A Harrison "Super-Special"..... \$1.75
Above meters finished in 0-100, 0-200, or 0-300 MA..... 2.95

SAVE WITH SAFETY AT HARRISON'S

We Can Supply Everything You
Need at Lowest Prices
Send Us Your Entire Order for
Real Service

100 Watt Bleeders. 9 1/2" x 1". Center-tapped. Mounted.
5000, 10,000, or 20,000 ohms..... \$1.25
50,000 or 100,000 ohms..... 1.35
25,000 variable with six sliders..... 1.70
50,000 or 100,000 with six sliders..... 1.80
GREBE Transmitting RF Chokes 1" x 4". Will pass 300 MA. Each..... 23c
BRISTOL Mike Transformer. For single or double button mikes. Uncased..... \$1.35
MIKE TRANSFORMERS. Good quality. In neat metal case. Single button..... \$1.75
Double button..... 2.35

VISIT OUR SALESROOMS

One Block South at Cortlandt Street

All Prices F.O.B. New York
Deposit Required

Special Filament Transformers. Completely mounted in neat metal cases. All windings Center-tapped. Insulated for 2,000 volts.

2 1/2 volts at 4 amps..... 95c
2 1/2 volts at 12 amps..... \$1.40
7 1/2 volts at 4 amps..... 1.25
10 volts at 4 amps..... 1.95
2 1/2 volts at 10 amps. and 2 1/2 volts at 4 amps. 1.75
7 1/2 volts at 3 amps. and 7 1/2 volts at 3 amps. 1.95
Pilot Polished Bakelite dials. Full 4". Reg. 50c. Special..... 15c

Cornell Vernier Dials. Art Metal. Illuminated. No back lash..... 27c

GENERAL ELECTRIC 5 Henry, 1000 Milliampere Filter Chokes. In neat metal cases. 5000 volt insulation. 25 ohms. 15 lbs. Special..... \$2.50
Four for..... 7.95

RCA 2 Henry, 300 MA Key Click chokes. 12 lbs. Special..... 90c

Transmitter Panels and case. Neat hardwood box 6 1/2"x7 1/2"x3 1/4", with hinged panel 6 1/2"x7 1/2". Spiral transmitting inductance containing 12 ft. of 1/4" copper strap, wavelength markers from 100 to 300 meters, two clips and four large binding posts. Very useful. Special each..... \$1.45
Three for..... 95c

MESCO Spark Coils. Good for shocking devices, chokes, magnets, etc. Contains 1/4 lb. of fine silk covered wire which can be used for RF chokes, etc. Regular \$7.00. SPECIAL..... 75c
Two for..... \$1.25

HARRISON RADIO CO.

★★ THE HOME OF FOUR STAR SERVICE ★★

Dept. A-4 New York City
142 Liberty Street

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

MR. SERVICE MAN

YOU NEED THE NEW ALLIED CATALOG...!

THE new 1933 World's Fair Issue of the ALLIED Catalog is ready. You need it every minute of your working day because it will make your servicing jobs simpler, quicker to do; and more satisfactory to you and your customer—and much more profitable. The new ALLIED Catalog has been wisely prepared especially for you by an alert and intelligent organization. It will save you time and save you money. The ALLIED Catalog is worth getting. Send for it today. It is absolutely free to every qualified Radio Serviceman, Radio Dealer, Experimenter and Amateur.

ALLIED excels in every possible aspect of radio merchandising. The best proof of this statement is in the tremendous volume of consistently repeated orders. The reason is apparent. ALLIED handles only first class standard parts—no "seconds," no "orphan" stock—clean, fully rated apparatus intended to give complete satisfaction. ALLIED undersells 9 times out of 10 and meets competition the tenth time—for like quality ALLIED values are unbeatable. ALLIED has radio's most complete line of equipment to service any set—ALLIED is Special Parts Headquarters. ALLIED is centrally located to give 24 Hour Rush Service. ALLIED handles all orders and inquiries intelligently, promptly, efficiently. ALLIED is the ONE RELIABLE SOURCE OF RADIO SUPPLY.

FREE!
SEND FOR THE
LATEST
ALLIED CATALOG

WRITE for the new 1933 World's Fair Issue of the ALLIED Radio Catalog. You will find it a valuable possession, to be classed with your Radio Service Manuals and your Test instruments—a real help in getting the exact duplicate or adequate replacement parts you need, at the lowest wholesale prices. ALLIED consistently offers you the best in radio at the greatest possible savings. Insure your work with quality radio merchandise. Why take chances? Send for the FREE World's Fair Issue of the ALLIED Radio Catalog.

**YOUR COPY
IS READY**



The ALLIED name means something more than low price, good quality, and efficient service. It means friendliness, reliability, and permanence—a whole-hearted cooperation extended always to our customers—an offer of valuable personalized service whether you are ordering hundreds of dollars worth of materials or only asking a technical question. The desire to SERVE is the whole spirit and backbone of the ALLIED organization.

PREPARED ESPECIALLY FOR THE RADIO SERVICE MAN

EVERY ALLIED Catalog and especially the new World's Fair Issue, is prepared exclusively to meet the merchandise needs of the Radio Serviceman, the Radio Dealer, the Radio Amateur, the Experimenter, the Factory Engineer, the School Laboratory Scientist, and for everybody interested in general radio development work. ALLIED understands the needs of each of these groups; its catalog is therefore the work of technical experts and intelligent engineer-purchasers who have their fingers on the pulse of the radio industry. The result is an astounding guide to radio's finest merchandise, bought wisely, and priced as unbeatable values. You need the new ALLIED Catalog. Send for it today. It's absolutely FREE.

I KEEP THE ALLIED CATALOG HANDY, BECAUSE—

—It's the biggest help I have in my service work. It is prepared especially for fellows like me. It lists replacements for all standard sets—is full of suggestive help—is modern, alive—a time-and-money saver. It's a real radio guide. That's why I always keep it on my bench.

—It has a great standing among us fellows. We know all about ALLIED—its stability and permanence. We get the sort of stuff we want, too—highest quality, tested and approved apparatus—AND WE LIKE THE PRICES.

—It means what it says about fast service. And that's important, because we want what we want when we want it. ALLIED gives you 24 hour Rush Service and saves you lots of delay and grief.

—It's got opportunity written on every page. Opportunity to save money. Opportunity to make money. It's rich with sales suggestions—new P.A. outfits, the latest universal and ultra all-wave sets—ideas for modernizing radios, etc.

—It is the most reliable source of radio supply we know. It introduced us to ALLIED'S personalized service, too—and we've had wonderful personal cooperation.

SEND FOR THIS VALUABLE GUIDE TODAY

YOUR reputation for sterling repair work is never questioned when you install a part bought from ALLIED, in the radio you are servicing. With the ALLIED Catalog as your one reliable source of supply you can consistently render service in its finest sense—and at an attractive profit. Servicemen prefer ALLIED materials for this reason. They eliminate all doubt with their assurance of constant exacting standards of perfection and quality for every item listed. Send for the new ALLIED Catalog today. You will need it and value it in all your radio work.



Allied Radio
CORPORATION
833 W. JACKSON BLVD., CHICAGO

1933 Resistor and Rheostat Exhibition

January 1st to December 31st

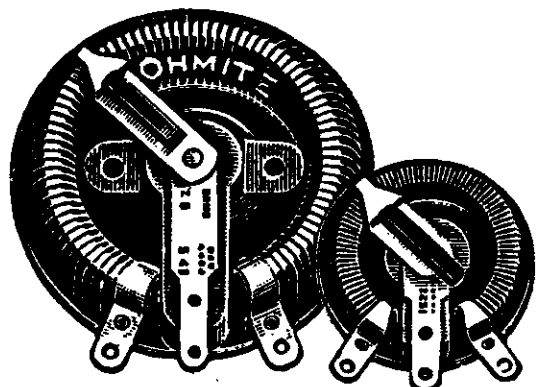
Resistors for every day in the year.

Booth No. 1



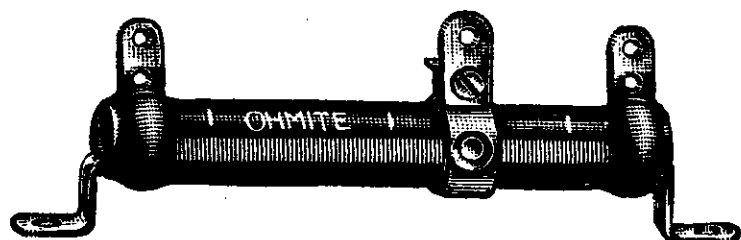
Booth No. 2

Power Rheostats



Booth No. 3

"Dividohm" Resistors



Booth No. 4

Fixed Resistors



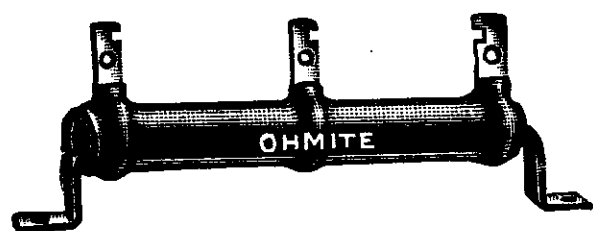
Booth No. 5

Precision Resistors



Booth No. 6

Trans. Grid Leaks



OHMITE MANUFACTURING CO.
638 N. Albany Ave., Chicago, Ill.

Please send me full information about the items checked.

- RED DEVIL RESISTORS ☐
- POWER RHEOSTATS ☐
- DIVIDOHM RESISTORS ☐
- FIXED RESISTORS ☐
- PRECISION RESISTORS ☐
- TRANS. GRID LEAKS ☐
- DETERM-OHM ☐
- RESISTANCE BOX ☐

Name.....

Address.....

City.....State.....

I Buy From.....

HERE we are at the 1933 Ohmite Resistor show—an exhibition of modern rheostats and resistance units for amateurs, radio service men, experimenters, and broadcasting stations.

In **BOOTH 1** we have that famous fire eater, the Ohmite **RED DEVIL**. This wire-wound, cement coated resistor defies overloads—it will not fail under a five hundred per cent overload, even though it becomes *red hot*. **RED DEVILS** are rated at ten watts in values up to 25,000 ohms, and twenty watts from 30,000 ohms through 100,000 ohms; this is the only resistor capable of passing the "Heat Test." See this unique demonstration at your dealers.

In **BOOTH 2** are the Ohmite all-porcelain, vitreous enameled rheostats in 25 watt, 50 watt, and 150 watt sizes. All have the self lubricating, metal-impregnated graphite contacts and are made entirely from in-organic materials. The resistance wire is wound over a horse-shoe shaped porcelain core and covered with vitreous enamel. Units are extremely quiet in operation and are now being used by amateur and B.C. stations who want the best rheostat obtainable; this is the only modern rheostat.

In **BOOTH 3** is the Ohmite "**DIVIDOHM**," a vitreous enameled variable resistor with the percentage-of-resistance scale (Patent pending) which greatly simplifies setting the adjustable lugs; lugs have a "ball point" contact which do not short out much resistance. **DIVIDOHMS** are carried in stock by leading jobbers in 30 watt, 55 watt, and 75 watt sizes, in 129 resistance values. These units are just the thing for experimental circuits, replacement voltage dividers, motor controls, etc.

In **BOOTH 4** is the Ohmite vitreous enameled fixed resistor, a wire wound unit of unquestioned quality. Four stock sizes, 123 resistance values up to 250,000 ohms, single layer wound.

In **BOOTH 5**, we see the precision resistors, the only vitreous enameled units having a tolerance of 1%. Because of the protection of the vitreous covering these units will stand relatively heavy loads; they are very useful for meter multipliers, resistance bridges, ohm-meters, etc.

In **BOOTH 6** are the transmitting grid leaks; these are made in all standard values and sizes. Used by hams all over the world. There are also many other Ohmite units not illustrated including the carbon resistors, **DETERM-OHM** resistance boxes, resistance indicators, slide-wire potentiometers, etc.

Be sure to register at the registration booth for full details about this interesting line of resistors and rheostats. There's no obligation of any kind.

← **REGISTRATION BOOTH**

OHMITE

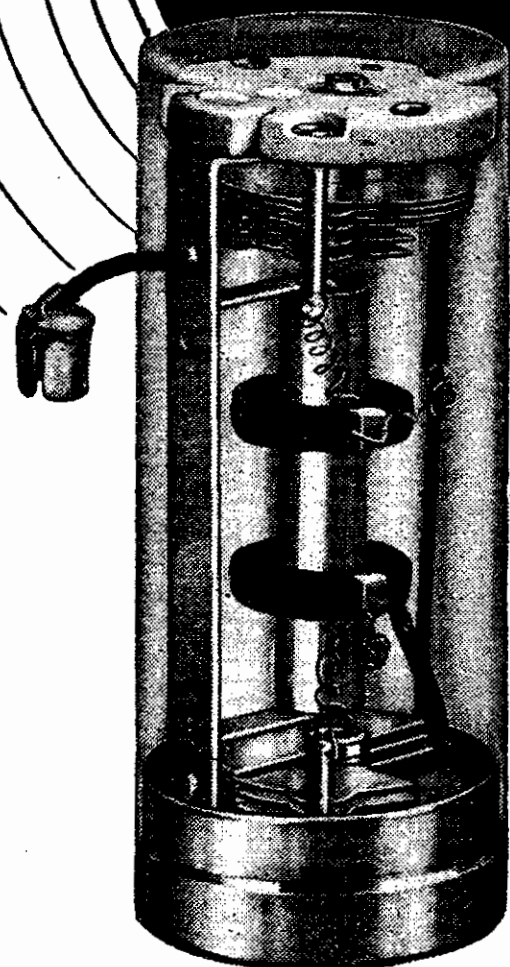
MANUFACTURING COMPANY

638 North Albany Avenue

CHICAGO, ILLINOIS

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

I.F. TUNING *Without an "if"*



The new Hammarlund Air-Tuned I.F. Transformers are available for replacement in former COMET models—or for markedly improving other superheterodynes.

Improved COMET "PRO"

The Only Professional
SHORT-WAVE RECEIVER
With Air-Dielectric I.F.
Tuning Condensers..

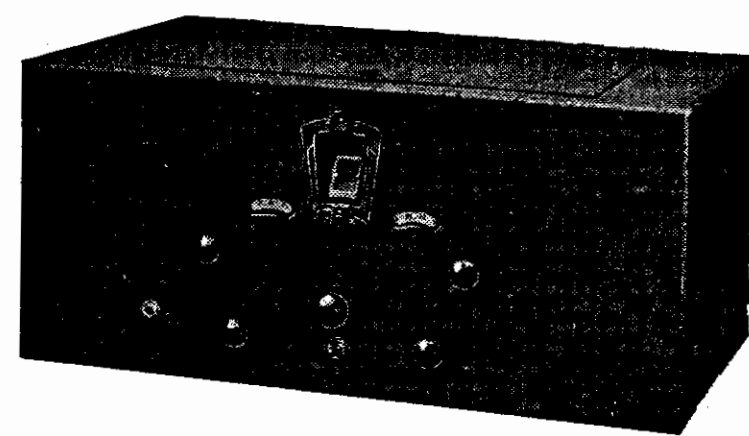


NOW—single signal characteristics on C.W., plus even greater sensitivity and selectivity on phone—with *easy tuning* for which the COMET "PRO" is famous.

Increased selectivity and sensitivity are gained in two ways. *First:* The I.F. transformers are tuned by *AIR-DIELECTRIC, Isolantite-insulated condensers* which hold their peak setting *CONSTANT* regardless of temperature or atmospheric conditions. They take the "if" out of the I.F. amplifier by insuring stability never possible before.

Second: The improved "PRO" has a beat-frequency oscillator, with knob control, which permits varying the beat frequency over a small range, so that an interfering signal is lowered on the tuning curve while the desired signal is held full-strength at the peak.

Professional and amateur operators throughout the world hail the "PRO" superiority. Now, with these *exclusive* improvements, the "PRO" again steps out ahead of even its original leadership.



Improved COMET "PRO" Short-Wave Superheterodyne

WITH the whole radio world to choose from, the COMET "PRO" short-wave superheterodyne holds honor position in the service of the U. S. and Canadian Governments, leading air-transport and steamship companies, police departments, and key stations of broadcasting networks—faithfully performing their most exacting tasks.

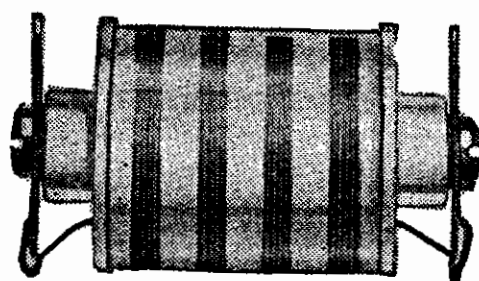
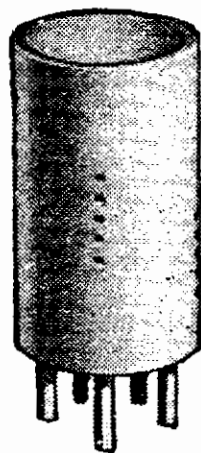
The improved "PRO" uses four "58" tubes, two "57's," one "247" and an "80" rectifier.

It is even more *sensitive* and *selective* than before—yet surprisingly *easy to tune* with its simple band-spread system. Full loudspeaker volume. Electron coupling gives greater oscillator stability. Shielding is more effective, and the new metal cabinet prevents stray influences. Wood cabinet optional. A.C. and Battery Models.

SOCKETS and COIL FORMS

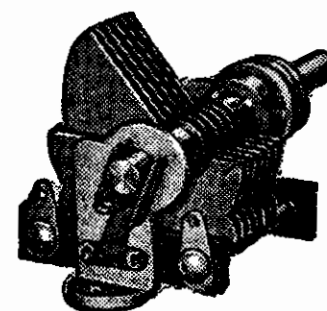
SOCKETS have Isolantite base and perfect spring contacts. Low losses and noiseless. 4, 5 and 6 prongs.

Isolantite Coil Forms for Ultra Short-Waves. Low loss. No drilling. Five prongs for standard sockets. Also similar forms with 4, 5 and 6 prongs for the standard short waves.

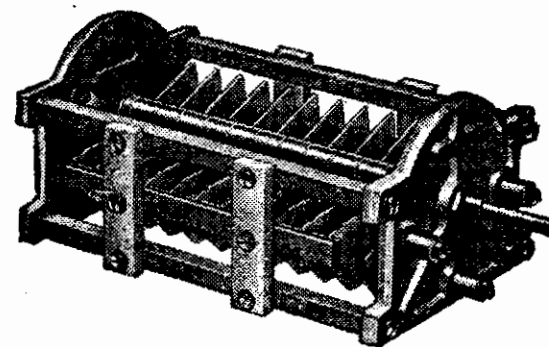


R. F. CHOKES

THIS low-loss radio frequency choke is designed particularly for short-wave and ultra short-wave receivers and transmitters, but its efficiency extends well above the regular broadcast band. Its compactness permits mounting in isolated positions well removed from stray r.f. fields, which together with its load characteristics, specially recommend it as a grid choke for multi-stage transmitters. Easily mounted or suspended. Isolantite form. Moisture-proof windings.



Hammarlund Condensers
hold first place for equalizing,
transmitting and receiving, on
standard or short waves.



Mail Coupon for Complete Catalog of Precision Products

HAMMARLUND MFG. CO., 424-438 W. 33rd St., New York

Please send complete catalog "33" of precision radio parts.Check here for folder on Air Tuned I.F. Transformers.

Name.....

Address.....

.....AC-3



LEEDS

The Home of RADIO

SAYS: We maintain the lowest prices in the country. . . . We issue no catalog because we must always keep up to the minute in prices and merchandise. . . . Write us stating what you need—we reply same day. . . . It pays to deal with LEEDS.

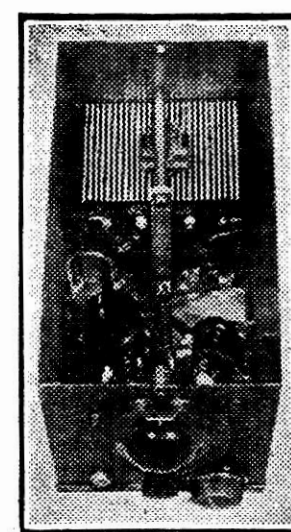
The New National FB-7

The new NATIONAL FB-7 Super Heterodyne receiver in stock. This latest National receiver strikes a new note in simplified operation, combining as it does true single dial control with greater sensitivity, 10 kc selectivity and complete "image" suppression in a 7 tube circuit especially developed around the new "50" series of tubes. Wavelength range 15-200 meters in five steps and "ham spread" 20-40-80 and 160 meter coils.

We know you will say F.B. seven times seven when you read these FB-7 net prices.

We have a complete stock of National parts and receivers on hand at all times, including the S.W.-3—S.W.-58—S.W.-34 receivers and the A.G.S. commercial type short wave super heterodyne. Bulletin and quotations furnished by return mail.

Factory Wired Receiver.....\$26.46
Coils (per pair).....\$5.88. 5880—AB Power Pack..... 13.41
7 Matched R.C.A. Tubes..... 7.68



LEEDS Band Spread MONITOR

furnished complete—De-Forest 430 tube, A and B batteries and 20-40-80 coils. 50 division spread on 20 meters—35 divisions on 40 meters and 70 divisions on 80 meters. Unconditionally guaranteed.

\$9.95

LEEDS 888 transformer—2 1/2 v. 10 amp. Center tapped, 10,000 v. insulation.....\$2.75
LEEDS mounted fil. trans. 7 1/2 v. 5 amp. Center tapped\$2.95
LEEDS mounted filament trans. 2-7 1/2 v. 3 amp. Center tapped windings.....\$3.95
LEEDS mounted 10 v. 7 amp. fil. trans. with 3 primary line taps to insure correct voltage\$3.95
LEEDS mounted fil. trans. 2 1/2 v. 10 amp. 1000 v. insulation for receiver or 888 fil. in low voltage power supplies.....\$1.15
LEEDS single button Mike trans.....\$1.25
LEEDS double button Mike trans.....\$1.45

LEEDS 300-WATT UNIVERSAL PLATE TRANSFORMER

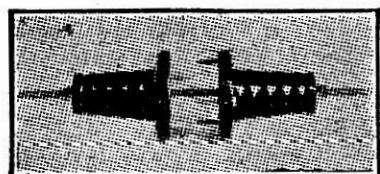
750-v.—1000-v. and 1500-v. taps each side of center. Furnished in Crystalline finished steel case with porcelain stand-off insulators for the high voltage taps. Extra Special.....\$9.95

NEW LOW CRYSTAL PRICES

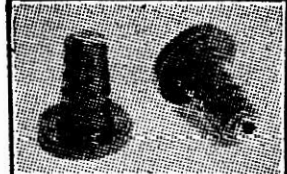
Y cut Crystals 160-80 M. bands .1 of 1% accuracy.....\$3.50
Y cut 160-80 M. oscillator blanks..... 2.00
X cut 80 M. .1 of 1% accuracy..... 4.75
X cut 40 meter Crystals, random frequency..... 6.50
LEEDS dustproof holder..... 1.45
De Luxe model..... 1.89
General Radio Xtal holder..... 2.25

GENERAL RADIO FORMS

The new G.R. porcelain coil forms in stock. Designed especially for low powered transmitters, buffers, etc. These forms may be put to a wide variety of uses.
677-U coil form..... 35c
677-PL spacers..... 15c
274-P plugs..... 8c
678-P plug base..... 35c
678-J jack base..... 35c
274-J jacks..... 50c



G. R. Type 629



G. R. Type 627

GENERAL RADIO—type 629 Lead-in Assembly consisting of 2 high grade porcelain insulators app. 2 1/2" long; 2 1/2" base; brass nickel plated 15" lead, complete with brass washers and nuts.....90c
Type 627 Jack Top stand-off insulator—2 1/2" x 2 1/2" high grade porcelain; complete with heavy duty type 674 jack.....60c
Type 628 plain top stand-off insulator, same as 627, but without jack.....30c

GRAMMER LOW POWER CRYSTAL TRANSMITTER KITS

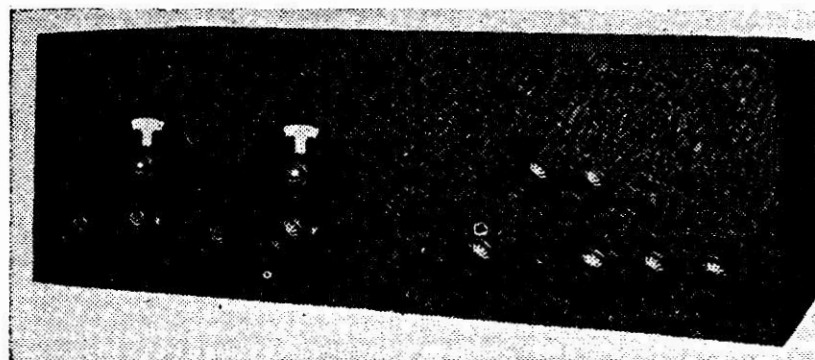
at lowest prices. Put a signal on the air of which you can be proud, at a reasonable cost.
Oscillator doubler kit.....\$12.75
Amplifier kit..... 7.50
Power supply kit..... 5.75

ANTENNA WIRE

No. 14 solid enamel, 100 ft..... 30c
No. 12 solid enamel, 100 ft..... 45c
No. 10 solid enamel, 100 ft..... 85c
Super Special 19 strands, No. 23, tinned, soft drawn copper wire, equivalent to No. 8; 100 ft. only..... 75c

Kellogg and Amplion Single Button Microphones

Ideal for portable transmitter. Extra special.....\$1.95



The "SUPREME" Single-Signal Super

"Sensational" and many other adjectives may be aptly applied to this adaptation of J. J. Lamb's Single-Signal receiver design to commercial construction. But we feel it to

be of greater interest to know that the operating characteristics of the "Supreme" conform to the high standards of Single-Signal reception, including additional features such as amplified automatic volume control, plug-in oscillator coils, etc.

T.R.F. stage with 58 tube; S.L.F. gang tuning with 58 linear first detector. Electron-coupled oscillator employing type 24-A tube. Coils for these three tubes are standard National plug-in type, so that dials track closely in all cases. Each stage completely shielded. Sensitivity control on r.f. and detector tubes to prevent cross modulation and overloading. Shielded crystal filter unit, including one-inch square crystal and air gap holder, with selectivity control and crystal switch on panel. 2-stage 465-kc. intermediate amplifier employing type 58 tubes. 55 duo-diode detector with latest amplified automatic volume control circuit, controlling r.f. and intermediate amplifier gain. Manual or A V C control at the flip of the switch. Headphone position on front panel.

High-C 24 beat-oscillator circuit adjusted to prevent "masking" of weak signals with modulation "hiss." Off-On switch and tuning control on panel. Resistance-coupled 247 power audio working dynamic speaker, with tone control to insure quality to suit the taste. Built-in 110-volt 60-cycle oversize power supply with 24-μfd condenser and speaker-field filter, insuring humless operation with 280 rectifier. All shielding, including case, 1/16" steel cadmium plated inside. Black crystal finish case 26 x 11 1/2 x 9 1/2".

Ham-spread 20-40-80-160 coils (3 coils per range) or regular 15-200 meter National coils in five ranges may be used without circuit changes. Complete kit including all parts with drilled cabinet and chassis, complete set of 9 Arcturus tubes, 8" Rola dynamic speaker and any three ranges of matched ham-spread coils, with detailed instructions for building and operating this simplified receiver. Only a screw driver, diagonals and soldering iron required. No deductions, substitutions or discounts at the remarkable price of \$95.00. Extra coil ranges \$6.50 net. Prices on custom built receivers furnished on request.

FLECHTHEIM FILTER CONDENSERS

at Rock Bottom Prices

1000 v. 1 mfd.....\$1.50
1000 v. 2 mfd..... 2.50
1000 v. 4 mfd..... 4.50
1500 v. 1 mfd..... 1.85
1500 v. 2 mfd..... 3.25
1500 v. 4 mfd..... 5.50
2000 v. 1 mfd..... 3.50
2000 v. 2 mfd..... 6.25
2000 v. 4 mfd..... 11.00

HAMMARLUND PRODUCTS

We carry a complete stock of Hammarlund products. Descriptive bulletin on request. Low loss midget condensers at bargain prices:

MC 20-S 20 mmf..\$.86
MC 50-S 50 mmf.. 1.03
MC 75-S 75 mmf.. 1.14
MC 100 1.23
MC 140 1.43
MC 200 1.60

KENYON Transformers

are available to fill every amateur and replacement purpose. Space does not permit a complete listing of the hundreds of Kenyon quality units. Just look at these items, the prices are typical of the entire line.

K-40 primary 110 v. 60 cycles H V 650 ct 40 MA. 5 v.-2 amp. 2 1/2 v.-5 1/2 amp. List \$3.75, extra special\$.95
K-67 110 v. 60 cycles 700 ct 75 ma. 5 v.-2 amp.; 2 1/2 v.-9 amp. List \$4.25 1.95
K-90 110 v. 60 cycles 750 ct 100 ma. 5 v.-2 amp.; 2 1/2 v.-7 amp.; 2 1/2 v.-12 amp. List \$5.50 2.25
KR-5 110 v. 60 cycles; 1100 v. ct 150 ma. 2-7 1/2 v. 2.5 amp. 1 1/2 v. 6.3 amp. 2 1/2 v.-10 amp. List \$7.75, special 3.95

Hundreds of other items at Big Special Prices. Constant changing of prices and merchandise makes it impossible for us to issue a catalog. Let us quote you on your needs by return mail.



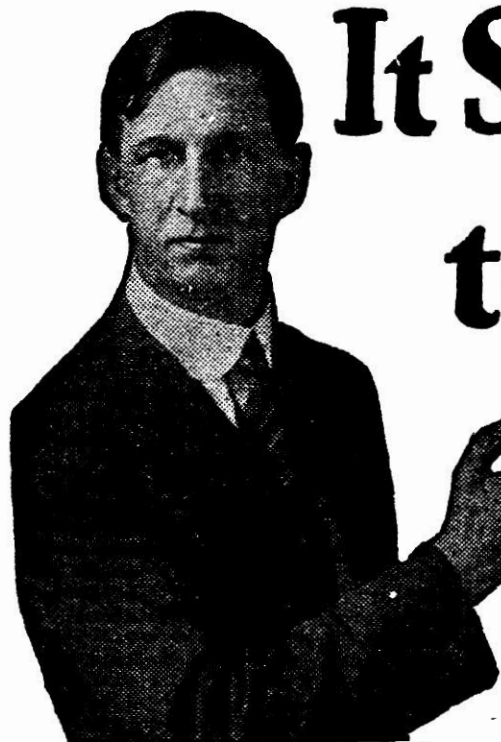
45 VESEY STREET,
NEW YORK CITY
New York Headquarters for
Transmitting Apparatus
WHEN IN TOWN VISIT
OUR STORE

MAIL ORDERS FILLED
SAME DAY

10% Cash
Must Accompany All
C. O. D. Orders

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

I'll Send My First Lesson **FREE**



Here's Proof



Made \$10,000 More in Radio

"I can safely say that I have made \$10,000 more in Radio than I would have made if I had continued at my old job."

VICTOR L. OSGOOD,
St. Cloud Ave.,
West Orange, N. J.



Runs Successful Radio Business

"I am a member of the firm of South Grand Radio & Appliance Co., which runs a very successful business. The greater part of my success I owe to N. R. I. Without your training, I could never have been successful in Radio."

J. A. VAUGHN,
Grand Radio & App. Co.,
3107 S. Grand Blvd.,
St. Louis, Mo.



Does Radio Work in Spare Time

"I am operating a 120-acre farm. Three nights a week I teach a Radio class. On the other nights I make service calls. Words cannot express my gratitude to N. R. I. Your training prepared me to earn nice sums of cash in spare time."

HOYT MOORE,
R. R. 3, Box 919,
Indianapolis, Ind.

It Shows How Easy it is
to Learn at Home
to fill a
BIG PAY
Radio Job

Clip the coupon and mail it. I'm so sure I can train you at home in your spare time for a big pay job in Radio that I'll send you my first lesson free. Examine it, read it, see how clear and easy it is to understand. Then you will know why many men with less than a grammar school education and no technical experience have become Radio Experts and are earning two to three times their former pay as a result of my training.

Many Radio Experts Make \$50 to \$100 a Week

In about ten years the Radio Industry has grown from \$2,000,000 to hundreds of millions of dollars. Over 300,000 jobs have been created by this growth, and thousands more will be created by its continued development. Many men and young men with the right training—the kind of training I give you in the N. R. I. course—have stepped into Radio at two and three times their former salaries.

Get Ready Now for Jobs Like These

Broadcasting stations use engineers, operators, station managers and pay up to \$5,000 a year. Manufacturers continually employ testers, inspectors, foremen, engineers, service men, buyers, for jobs paying up to \$6,000 a year. Radio operators on ships enjoy life, see the world, with board and lodging free, and get good pay besides. Dealers and jobbers employ service men, salesmen, buyers, managers, and pay up to \$100 a week. My book tells you about these and many other kinds of interesting Radio jobs.

Many Make \$5, \$10, \$15 a Week Extra in Spare Time Almost at Once

The day you enroll with me I send you instructions which you should master quickly for doing 28 radio jobs common in most every neighborhood, for spare-time money. Throughout your course I send you information on servicing popular makes of sets. I give you the plans and ideas that have made \$200 to \$1,000 a year for N. R. I. men in their spare time. My course is famous as the course that pays for itself.

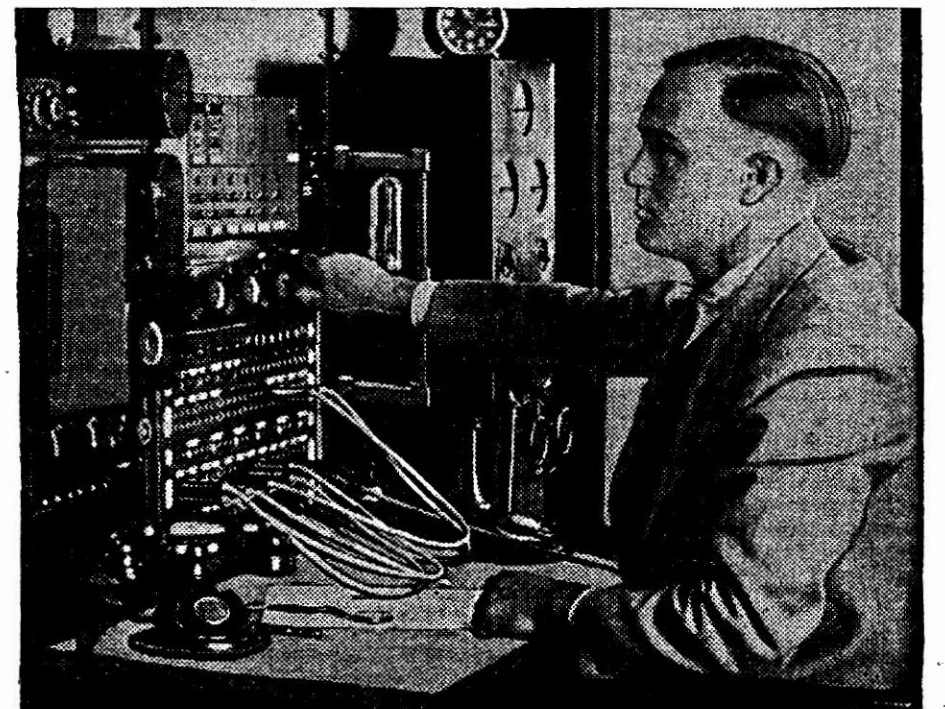
Television, Short Wave, Talking Movies Money-Back Agreement Included

Special training in Talking Movies, Television, and Home Television experiments, Short-Wave Radio, Radio's use in Aviation, Servicing and Merchandising Sets, Broadcasting, Commercial and Ship Stations are included. I am so sure that N. R. I. can train you satisfactorily that I will agree in writing to refund every penny of your tuition if you are not satisfied with my Lesson and Instruction Service upon completion.

64-page Book of Information FREE

Get your copy today. It's free to all residents of the United States and Canada over 15 years old. It tells you where Radio's good jobs are, what they pay, tells you about my course, what others who have taken it are doing and making. Find out what Radio offers you without the slightest obligation. Mail coupon in envelope or paste on post card. ACT NOW!

J. E. SMITH, President
National Radio Institute, Dept. 3CE
Washington, D. C.



SPECIAL Radio Equipment for Broad Practical Experience Given Without Extra Charge

My course is not all theory. I'll show you how to use my special Radio equipment for conducting experiments and building circuits which illustrate important principles used in such well-known sets as Westinghouse, General Electric, Philco, R. C. A., Victor, Majestic, and others. You work out with your own hands many of the things you read in our lesson books. This 50-50 method of training makes learning at home easy, interesting, fascinating, intensely practical. You learn how sets work, why they work, and how to make them work when they are out of order.

Training like this shows up in your pay envelope—when you graduate you have had training and experience—you're not simply looking for a job where you can get experience.



With N. R. I. equipment you learn to build and thoroughly understand set testing equipment—you can use N. R. I. equipment in your spare-time service work for extra money.

I have doubled and tripled the salaries of many. Find out about this tested way to **BIGGER PAY**



Get a Job with a Future

FILL OUT AND MAIL THIS COUPON **TODAY**

J. E. SMITH, President
National Radio Institute, Dept. 3CE
Washington, D. C.

I want to take advantage of your offer. Send me your Free Sample Lesson and your book, "Rich Rewards in Radio." I understand this request does not obligate me.

Name _____ Age _____

Address _____

City _____ State _____

"R"

The Famous Course That Pays For Itself

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

DISTRIBUTOR

W. W. BINGHAM, W9AFF

Amateur Service Sales

DON'T FORGET THE
AMATEUR EXHIBIT
CHICAGO WORLD FAIR

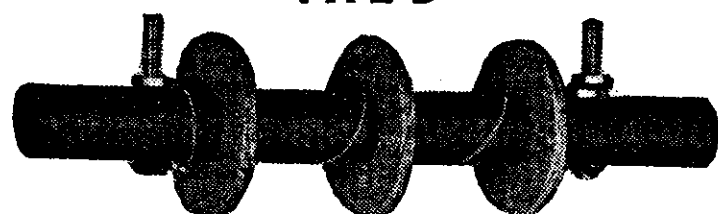
**2706 Warren Boulevard
Chicago, Illinois**

Only Genuine Units Have Amateur Service Sales Label

Our Specialty! R. F. Chokes, I. F. and R. F. Coils

USED IN WALLACE XMTR

TYPE B



IDEAL AS GRID CHOKE

Type B—Standard Type Short Wave Transmitter Choke

Same high standard and operating conditions as type A. Highly treated against moisture.

Inductance 1.75 M.H.
Current Capacity 200 Mils.D.C.
Distributed Capacity less than $1\frac{1}{2}$ MMF. in Circuit.
Very low D.C. Resistance. See Text in Wallace Manual.

List Price each \$1.25

USED IN WALLACE XMTR

TYPE A



HEAVY DUTY

Type A—Heavy Duty Short Wave Transmitter Choke

Has wonderful response from 5 to 200 meters. Cancels out the even harmonic frequencies, and avoids the burning point. By virtue of the additional impedance, it is ideal where frequency doubling or tripling is desired, thereby obtaining super high-frequency oscillations. Highly treated against moisture.

Inductance 1.95 M.H.
Current Capacity 1000 Mils.D.C.
Distributed Capacity less than $1\frac{1}{2}$ MMF. in Circuit.
Very low D.C. Resistance.

List Price each \$1.50

USED IN WALLACE
WINNER RECEIVER

TYPE C

**Type C—An Ideal Short Wave Receiver Choke**

Lateral wound on a wood dowel, sealed against moisture. Self supporting due to the heavy type solder lugs. Brass eyelet does not change inductance. Can be soldered to coil or tube socket base. No mounting screw or bolt required. See Text in Wallace Manual.

Inductance 4.3 M.H.
Current Capacity 30 Mils.D.C.
Very low D.C. Resistance.

List Price each \$.25

A REAL THRILL ON
5-METERS

TYPE E

**Type E—Long Wave Oscillator Coil for 5 Meter Receivers**

Built according to Q S T articles in 1924 and 1931. Lateral wound coils, mounted on wood dowel, with marked base for wiring. Mounts on wood or metal base. Improved in our laboratory to highest degree of efficiency. Just the unit for those who wish to build their own five meter receiver using the super-regenerative circuit for ultra-high frequencies. Mounts under 1-inch sub-base.

List Price each \$.90

Types B-C-Units Authorized by Don Wallace, W6AM, in His 1933 Short Wave Radio Manual (Pacific Radio-Publishers). \$1.00 Per Copy. Complete in Every Detail. Get Your Copy Now and Build the Receiver That Won the Hoover Cup. If Your Dealer or Jobber Does Not Have the Above Units or Wallace Manual Write Direct. We Always Have a Complete Stock

UTILITY UNITS
FOR THE TRANSMITTING AMATEUR



THE 1933 WALLACE SHORT WAVE MANUAL TELLS YOU HOW TO GET MORE OUT OF YOUR EQUIPMENT TELLS YOU HOW TO BUILD SHORT WAVE SETS THAT ARE NOISE-FREE TELLS YOU HOW TO INCREASE THE EFFICIENCY OF ANY SHORT WAVE RECEIVER.

DON C. WALLACE has devoted the major portion of his radio career to the perfection of minute details in short wave receiver design and construction. Some years ago he was awarded the Hoover Cup for building the best amateur short wave equipment. Since that time he has made a number of important contributions to short wave radio. His present-day receiver is, in the opinion of all who have heard it, the last word in efficiency, quietness in operation and unparalleled for its ability to bring in stations that are inaudible on many higher priced receivers. The Wallace receiver is so simple in its design and construction that anybody can build it. Its cost is only a few dollars.

Any short wave receiver can be re-

vamped to include the Wallace improvements. The parts for the Wallace receiver are now in the process of manufacture by some of our best known radio factories. You can build the inexpensive little 2-tube wonder receiver from materials that are available in the open market.

The uncanny ability of this receiver to bring in stations *without noise* is one reason for its success. You can learn about this Wallace idea by getting a copy of the 1933 Wallace Short Wave Manual. In it is told the entire story: How to design short wave aerials that operate most efficiently at definite frequencies; how to make no-loss parts for the receiver; how to properly assemble and wire it; how to build a simple '47 tube short wave transmit-

ter; how to build a simple 'phone transmitter. The Manual also contains the new revised short wave log and time table of the world. It tells how to pass the Amateur license examinations. Gives you a new audibility table that tells what chance you have of hearing the stations you are listening for. This is an *original* book, chock full of efficiency-creating ideas for short wave reception and transmission.

Every radio amateur should have a copy of the 1933 Wallace Short Wave Manual. One suggestion for increasing the efficiency of your equipment will be worth more than the price of the Manual. Copies will be ready for mailing on March 20th. But your order should be sent *TODAY*. Then you will be among the first to receive a copy.



Representatives . . . Jobbers Dealers and Booksellers . . . **WANTED**

THERE will be a demand for the 1933 Short Wave Manual, everywhere. The trade is invited to write for quantity prices. Advertising and sales promotion material will be supplied to help sell this Manual. The large national advertising campaign which is behind it will assure you of profitable sales.

Write at Once for Trade Prices

PACIFIC RADIO PUBLISHING CO.
Pacific Building San Francisco, Calif.

ORDER FOR WALLACE MANUAL

PACIFIC RADIO PUBLISHING CO.
422 Pacific Bldg., San Francisco, Calif.

Here is \$1.00. Send me a copy of The 1933 Wallace Short Wave Manual as soon as it is off the press. It is understood that the Manual is to be sent POSTPAID.

NAME.....

STREET AND NO.....

CITY.....

STATE.....

POWERTONE

SHORT WAVE

A.C. AND D.C. RECEIVERS

WORLD RECEPTION

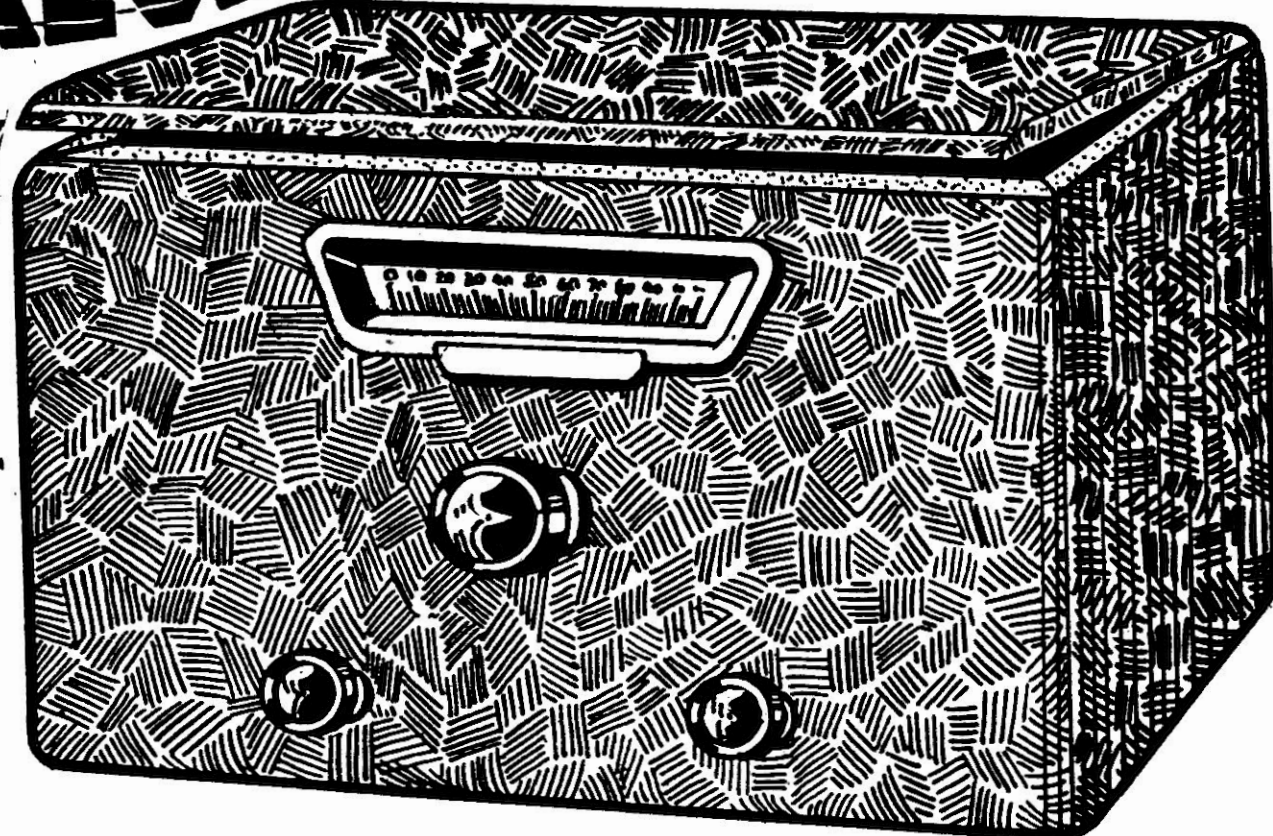
REMEMBER . . .
Only Nationally-Known
Parts Used in All
POWERTONE SETS

NOW you can buy a Short Wave Receiver that you can have the utmost confidence in, for it contains everything you desire—*finest quality parts—super construction—and most importantly, wonderful reception.*

WHAT MORE CAN ANY SHORT WAVE SET OFFER?

HAMMARLUND tuning condensers; special oversized Electrostatically-shielded Power Transformers; Four new improved **POWERTEST** plug-in coils covering the wavelength from 15 to 200 meters; Complete shielding which reduces dielectric losses to a minimum and assures maximum and uniform efficiency under all conditions; **LYNCH** color-coded R.M.A. resistors used throughout. They are unsurpassable in construction and yet selling at such a ridiculously low price that anybody can now own one. Our huge purchasing power enables us to undersell all competition.

Prices Include Tubes Complete! Nothing Else to Buy



The 4 and 5 tube A.C. receivers use **OCTO** form plug-in coils covering the wave length from 15 to 200 meters.

BATTERY OPERATED MODELS

2-Tube wired	\$ 9.95	3-Tube wired	\$10.95
Kit of parts	7.95	Kit of parts	9.95
Tubes (232, 233)		Tubes (34, 2-30)	

A.C. MODELS

3-Tube AC wired	\$14.95	4-Tube AC wired	\$19.75	5-Tube AC wired	\$24.95
Kit of parts	12.75	Kit of parts	16.95	Tubes (2-58, 56, 59, 80)	
Tubes (56, 57, 80)		Tubes (58, 56, 47, 80)			

A TRIO OF OUR SUPER-BARGAINS

ONE OF OUR OUTSTANDING VALUES

Stromberg-Carlson
MAGNETIC PICK-UP OUTFIT

Price \$7.50

SPECIAL OFFER! \$2.00 Allowance for Your Old Pick-Up

\$5.50 with your old pick-up

Lists for \$30.00. All in original cartons. Out outfit is complete—nothing else to buy!

Stromberg-Carlson Input Transformer, Stromberg-Carlson Pick-Up with built-in Volume Control, Pick-Up Plug, and 20 ft. of insulated extension cord. We carry a great quantity of these pick-ups in stock thus assuring you prompt delivery.

R.C.A. Single Button Carbon Microphone

Its fine response curve makes it suitable for home recording and amateur broadcasting. 100 ohms. Operates from 1 1/2 dry cell and draws 10 mls. Equipped with 5 ft. cord.

Special Bargain Price.....

\$1.45

NEW BEEDE METERS

D'ARSONVAL MOVEMENT



Beede moving coil instruments are available at prices which are amazingly low for this type of instrument. Unusual ruggedness, high accuracy, and freedom from dust and foreign matter. Perfectly balanced in all positions.

Model 701 Panel Instruments— Flush Type D.C. Milliammeters— Single Range—3 1/4" Diameter	
Range	Price
0-1	\$4.12
0-1.5	4.12
0-2	4.12
0-3	4.12
0-5	3.25
0-10	3.25
0-15	3.25
0-20	3.25
0-25	3.25

D.C. Voltmeters—Single Range Resistance Approximately 125 ohms per volt	Price
0-1	\$3.25
0-2	3.25
0-3	3.25
0-5	3.25
0-8	3.25
0-15	3.25
0-20	3.25
0-25	3.25
0-50	3.25
0-100	3.25
0-150	3.25
0-200	4.12
0-250	4.12
0-300	4.80
0-500	5.50
0-1000	8.60

3 stage 250 Push Pull Amplifier—uses 27, 24, 2-81, and 2-250. An exceptional value, less tubes.....	\$18.50
Guaranteed 45 volt "B" batteries.....	.79
2 1/2 volt Filament Transformer ct.....	.95
Midget Power Transformer—110-115 volt primary. High voltage 700 ct. (350-350) 5 volts for 80 type rectifier and 2 1/2 winding at 8 1/4 amps.....	.95
Sangamo Push-Pull, Input and Output Transformers, pair.....	2.50
Each.....	1.25
Standoff Insulators 2 1/2", complete with hardware, doz.....	.50
Microphone Floor Stands—12 lbs. weight, extends from 40 to 72".....	3.95
8 Mfd. Dry Electrolytic Condenser, 500 volts.....	.45
Eby moulded Bakelite Sockets—4 & 5 prong.....	.12
6 prong.....	.15
K.K. Vernier Dials—3 and 4 inches.....	.49
Microphone Transformers—single or double button, uncased.....	.89
Cased.....	1.39
Extension Cord—20 ft. with connector 30 ft. with connector.....	.20
Centralab 5,000, 10,000, 25,000, 50,000, 100,000, 250,000, 500,000 potentiometers with switch.....	.59
Less switch.....	.49
6 Oz. Lightweight Headphones.....	.95
R.C.A. 50 watt Transmitting Tubes.....	10.00

Weston 3 Meter Set-Analyzer.....	45.00
Guaranteed 250 Tubes.....	1.49
Guaranteed 210 Tubes.....	1.49
Baldwin Type "C" Phones.....	2.95
G.E. 1 watt Neon Bulb.....	.49
G.E. 2 watt Neon Bulb.....	.59
Powertone 1800 ohm DC Dynamic Chassis tapped at 300 ohms, 6".....	1.95
HAMMARLUND Comet Pro, Latest improved model. Write us for lowest price.....	
866 Heavy Duty Mercury Vapor type rectifier.....	1.25
"ROCKET" 2-Tube Short-Wave (battery operated) Receiving Kit, uses two 230 tubes, less tubes.....	4.50

ALUMINUM SHIELD CANS

(Shipped in knocked-down form)

4 x 5 x 6.....	\$.98	6 x 7 x 10.....	\$2.25
5 x 5 x 6.....	1.00	8 x 8 x 6.....	1.95
6 x 6 x 6.....	1.35	12 x 6 x 6.....	1.75
9 x 5 x 6.....	1.50	14 x 7 x 6.....	2.50

ALUMINUM PANELS

7 x 10.....	32c	7 x 18.....	69c
7 x 12.....	35c	7 x 21.....	75c
7 x 14.....	51c	7 x 24.....	89c
7 x 16.....	61c	Best grade obtainable	

LOWEST PRICES OBTAINABLE!!!

American Model "EL" Double Button Microphone, stretched diaphragm.....

Push-Pull Output Transformer with primaries matched for any power tube, and secondaries matched from 12 to 15 ohm voice coil. State type when ordering.....

LYNCH Transposition Insulators for receiving antenna. Set of 10.....

Amateur Handbook (A.R.R.L. Latest).....

R.C.A. 100 B, 103 Magnetic Speaker Chassis.....

TUNGAR Type Tubes—.6 amps trickle charger type.....

.2 amps without tip.....

.2 amps with tip.....

All tubes first quality and guaranteed brand new.

INFINITE VARIETY & VALUES

FREE!

Our new colored catalog is now ready for all wide-awake Amateurs, Hams and Short-Wave Experimenters who are looking for finest quality merchandise at the lowest available prices. Use it as your guide for buying every radio part you want, and rest assured that the price is below all competition. Every item advertised is carried in stock, thus assuring **PROMPT DELIVERY.**

TRY-MO RADIO CO.
85 CORTLANDT ST., N.Y.

HOW TO ORDER

Kindly forward 20% deposit on all C.O.D. orders. If payment is check, please certify to insure immediate delivery.

TRY-MO RADIO Co., Inc., Dept. RA

Mail Order Dept. and Main Store
85 Cortlandt St.

New York City,
N. Y.

Branches: 178 Greenwich St., nr. Dey St., 179 Greenwich St., nr. Cortlandt St.

PLEASE NOTE

Besides our prices already being the lowest of any mail order house, we have taken an additional 2% off the quoted prices.

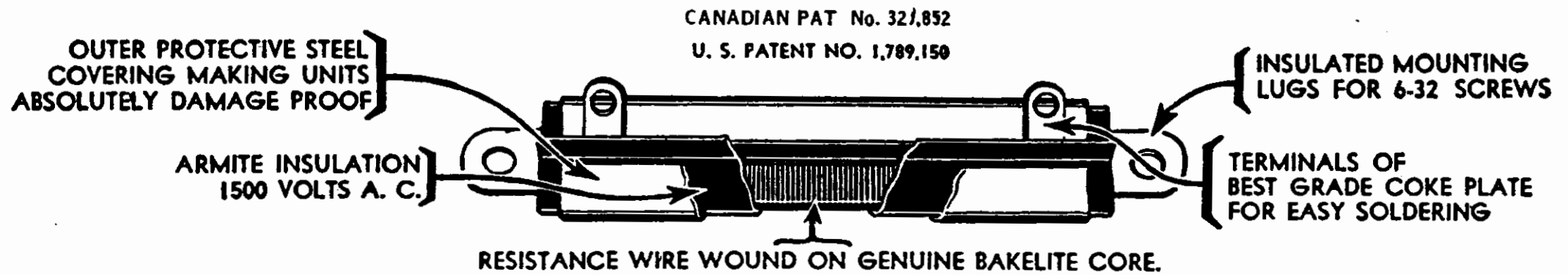
Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

CANDOHMS

WIRE WOUND

FIXED RESISTORS

*Candohms Armoured Replacement Units Are
Standard Equipment in the Leading Sets*



**SPECIAL
INTRODUCTORY
MONEY
MAKING
OFFER**

To Radio Service Men

\$6.40 VALUE

Complete assortment of 25
CANDOHMS in 20 different values enabling im-
mediate replacement of any service job for

\$2.00 PREPAID

Contents of Kit

Stock No.	Ohms	Quantity	List	Amount	Stock No.	Ohms	Quantity	List	Amount
702	20 CT	1	\$.20	\$.20	724	500	2	\$.20	\$.40
704	40 CT	1	.20	.20	725	600	1	.20	.20
706	60 CT	1	.20	.20	726	750	2	.20	.40
709	50	1	.20	.20	728	1000	2	.20	.40
710	100	1	.20	.20	730	1250	1	.20	.20
715	150	1	.20	.20	760	1500	1	.40	.40
720	200	2	.20	.40	762	2000	1	.40	.40
721	250	1	.20	.20	764	2500	1	.40	.40
722	300	1	.20	.20	765	3500	1	.40	.40
723	400	1	.20	.20	766	5000	2	.50	1.00
					Total				
					25				
					\$6.40				

SPECIAL TO AMATEURS

BLEEDER RESISTORS					GRID LEAKS			
Volts	Ohms Resistance	Watts	Mounting Center	Price	Ohms	Watts	Mounting	Price
400	20,000	50	9"	\$1.00	5,000	50	9"	\$.75
500	25,000	75	9"	1.25	10,000	50	9"	.75
750	40,000	75	9"	1.50	10,000 C.T.	100	9"	1.50
1000	50,000 (2-25000s)	100	9" ea.	2.00	20,000	100	9"	1.50
1500	80,000 (2-40000s)	100	9" ea.	3.00				
2000	100,000 (4-25000s)	200	9" ea.	4.00				

YOU SAVE \$4.40

THE MUTER COMPANY

1255 South Michigan Ave.
Chicago, Ill., U. S. A.

The Muter Company, 1255 S. Michigan Ave., Chicago, Ill., U. S. A.

☐ Please send Candohm Resistor Kit Prepaid
\$2.00 is enclosed.

☐ Send Name.....
C. o. d. Address.....
City..... State.....

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine

UNCLE DAVE

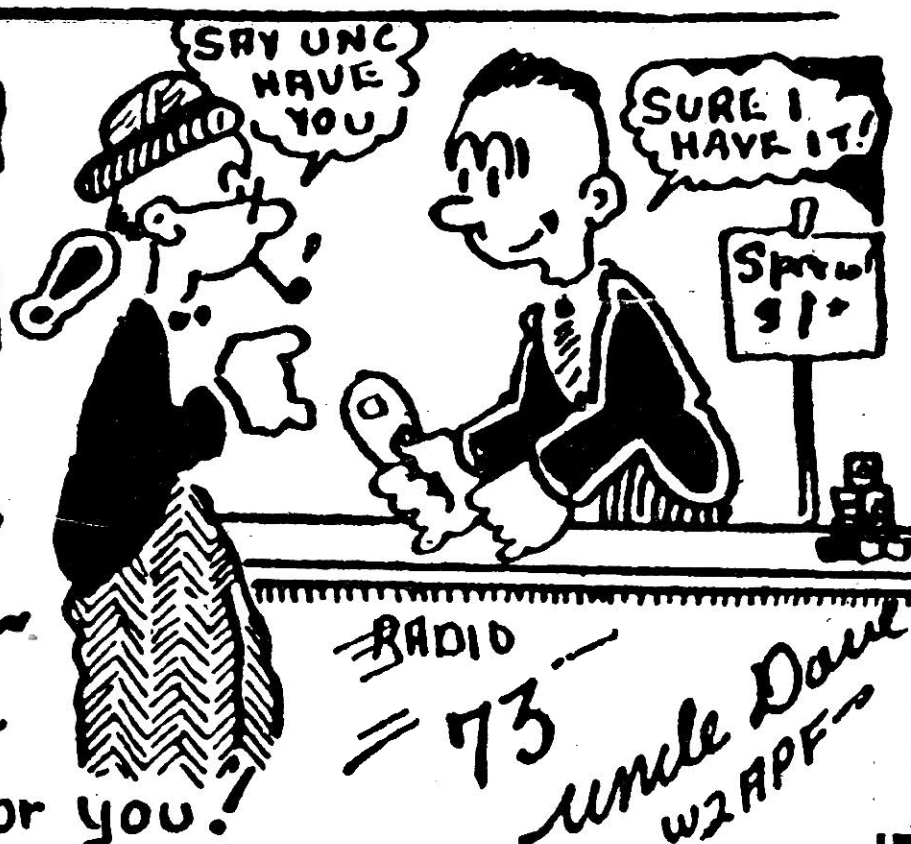
356 Broadway

Albany, New York

We buy, sell and trade Ham stuff!

24 HOUR SERVICE ♦ SHIP ANY PLACE

If we have not got it we will get it for you!



\$50.00 RF and IF

Reasonable prices on kits for the most up-to-date receiver! Uncle Dave makes it possible for you to own this finest of all Jim Lamb's brain-children without going on the dole. All necessary parts—high grade merchandise too, no junk—including coils, condensers, resistors, shields, sockets; aluminum cut to size and bent but not drilled; tap and drill; dials, knobs, 525 kc. crystal

Single-Signal Super-Het Kits

IF and AF \$39.00

and airgap holder—every component for the world's sweetest high-frequency receiver at prices of which you can't afford NOT to take advantage.

Complete RF and IF filter kit (see QST for Aug. '32).....\$50.00
Complete IF amp. AF kit (see QST for Sept. '32).....39.00

Pilot Universal Super-Wasp; 6 tube; complete with power pack and tubes in neat cabinet; tunes 15 to 550 meters, no plug-in coils; list \$85.00. YOUR SPECIAL PRICE.....\$32.50

SILVER-MARSHALL BARGAINS

No. 220 1st and 2nd stage AFT, ratio 3:1 flat 30 to 5000 cy.....\$2.45
No. 225 1st stage AFT, ratio 4.3:1.....2.40
No. 226 2nd stage AFT, ratio 3.5:1, mate to No. 225.....2.40
No. 228 Univ. output choke PP '71, '45 or '50 Hi-imp speaker.....1.95
No. 231 output transformer PP '10 or '50 to speaker.....3.00
No. 248 Univ. output choke, single or PP '12, '71, '10, '45 or '50 to voice coil of dynamic speaker.....1.95
No. 255 1st stage AFT or pickup input trans. ratio 4.2:1.....1.65
No. 256 2nd stage AFT, ratio 3.5:1, mate to No. 255.....1.65
No. 4057 unichoke. Heavy duty mfrs. model.....2.50
S-M Midget PP input transformers WHILE THEY LAST......95
No. 10132 power trans. 1030-0-1030 v., 150 ma. for 845's.....15.00
No. 10125 filter choke 11 by 200 ma 90 ohms DC resistance.....5.00
No. 10122 output trans. PP 845 to 500/200 ohm line.....7.50
No. 336U power trans. 520 v. CT, 5 v. 3 a., 2-2 1/2 v., 1.5 v. 4 amp.....3.50
No. 329 power trans. 2-200 v., 2-2 1/2 v. fl.....3.00
No. 275 RF choke, BC, 2 1/2 mhy......65
No. 277 RF choke sectional univ. wound, 3.4 mhy......65
S-M coil forms, .39; S-M coils all ranges......75
Silver-Marshall POWER TRANSFORMER built for 14 tube super, 110 v. pri., 750 v. CT, 5 v. 2 a. and 2 1/2 v. 16 a. secondaries, completely shielded, lug terminals, electrostatic shield, SPECIAL.....5.75

HERE'S SOMETHING YOU WANT!

A nifty 2-button mike—with a REAL frequency characteristic—in a 9 1/2-inch ring-stand with 8 springs—and—YOUR CALL CAST in the name plate complete for.....\$5.25

Erpee featherweight phones, per pair.....\$1.95
Baldwin phones, type "C".....3.39
Baldwin type "G," the old reliable.....4.95
BALDWIN TYPE "N," very latest thing in featherweight dynamics.....7.95
Soft rubber ear cushions, per pair......50
GR No. 365 power transformer, 110 v. 60 cy. 550 v. CT 7 1/2 v. fl.....3.50
GR No. 366 double filter choke, low DC resistance; cased.....3.00
Jenkins (Amertran) Television Power Unit, 115/130 v. 60 cy. pri., 1200 v. CT 5 v. CT, 2-2.5 v. fl., 2-25 hy. chokes in steel shield-case.....8.75
Practically new WESTON milliammeters 0-50, SPECIAL at.....3.00
Other NEW Weston milliammeters, 0-5 to 0-500 ranges.....5.80
New JEWELL milliammeter, 0-5 to 0-500 ranges.....5.40

BEEDE METERS

A moderate priced meter of quality; fills a long felt need for the amateur, 3 1/2" black enamel case, sensitive, well-damped D'Arsonval movement, zero adjustment, long scale, 2% accuracy, No. 701 milliammeter, ranges 0-5 to 0-1000, list \$4.75, each.....\$3.32

Baby mike—be your own announcer.....\$.25
Omnigraphs, 5-dial, each.....6.50
15-dial, each.....12.50
Teleplexes, 3 tapes.....10.00
ARRL Ham Handbook, prepaid.....1.00
Latest Ham Callbook, prepaid.....1.00
Riders Manual, Vol. I.....5.00
Riders Manual, Vol. II.....4.50
ARRL Log Books, 3 for.....1.00
Code learning apparatus for rent. WRITE!

USED WAVEMETERS

GR type 358, 14 to 230 meters, in wooden case with coils and cabinet.....\$ 8.00
REL No. 184-111, 200-214 meters, walnut case.....15.00
Bu. Stan. by John Fitch, 1500-20,000 meter, switch for changing ranges, splendid shape, used wavemeter.....14.00

Jewell Pattern 174 voltmeter and wattmeter 60 cycle AC, 150 v., 1/2, 5, and 20 amps., bakelite case, new condition; list \$80.00, SPECIAL.....40.00

25-WATT TUBE

Fills the gap between the '10 and the '03A. A husky, well-built tube with a plate nearly twice the size of the regular '10. Plate terminal at top, plenty of insulation inside. Our engineering department cooperated with the manufacturers in revamping this into a real tube. It's rated at 750 volts plate, 85-100 volts bias; has a 7 1/2 volt filament so you need not change filament transformers to increase your power. And it stands the gaff. Each one tested at Uncle Dave's.....\$4.25
25-watt tubes, each.....\$4.25

ALL THE LATEST AND BEST IN HIGHEST QUALITY TUBES!

	Genuine RCA or Cunningham	HYTRON— 1000 hr. uncond. guarantee	Ravac— 90-day guarantee
'45.....	\$.68	\$.58	\$.36
'46.....	.91	.78	.62
'47.....	.94	.80	.45
'56.....	.76	.65	.52
'57.....	.97	.83	.62
'58.....	.97	.83	.62
'32.....	1.38	1.18	.75
'33.....	1.65	1.40	.85
'35.....	.97	.83	.36
Heavy duty '66's, 90 day guarantee.....			\$ 1.40
Extra heavy '66's, spiral fl., cylindrical plate.....			3.35
NEW CG1162 Navy 5 watters, each 25c; per DOZEN.....			1.00

Manhattan full wave high voltage rectifier tube No. 2721; rated 90 ma., 470 v., 45 ma. 800 v. cold cathode, each......50
Ureco type 2L half wave rectifiers, 5 v. fl., each 15c; per dozen......75
W.E. 212D 250 watters, excellent modulators, practically new.....35.00
212D, used but in excellent condition.....25.00
212A, used about 50 hours.....25.00
RCA 852, slightly used.....14.00
RCA 211's, used.....8.00
'03A's, used, some nearly new, SPECIAL.....8.00
'04A's, used, SPECIAL AT.....22.00
RCA 240 (hi-mu '01A) 3 for.....2.00
National R-81 Rectobulb.....3.45
National R-3 Rectobulb.....5.90
New DEFOREST 450's, each.....3.25
New DEFOREST 481's, each.....1.75

PUBLIC ADDRESS EQUIPMENT

Wow LOFTIN WHITE AMPLIFIER Wow Big Buy! Hot Bargain!

A wired and tested, licensed Loftin-White built by Sprague for their Home Talkie outfit, '24A followed by '45; 280 rectifier; excellent audio characteristic; high gain, small bulk—splendid mike and speech amp. for ham or PA service; AND THE PRICE.....\$6.95
SONOCHORDE 8" dynamic speaker, 4,000 ohm field, specially designed for above amplifier, complete with transformer matching 245 to voice coil.....\$3.95

SAMSON PAM AMPLIFIERS AT ROCK-BOTTOM PRICES

PAM 5; uses '27, 2-12a, '80.....\$18.00
PAM 16; uses '27, 2-10, 1-81.....22.50
PAM 17; uses '27, 2-10, 1-81.....22.50
PAM 20; uses '27, 2-50, 1-81.....41.50
PAM 19; uses '27, 2-50, 1-81.....41.50
PAM 100; uses '27, 2-45, '80, dynamic speaker built in.....32.00
PAM 3; uses '27, '50, '81.....21.50
PAM 8; uses '26, 2-10, '81; supplies 125 v. field.....19.50
PAM 25; uses 2-50, '81.....21.50
PAM 52; uses 2-50, 2-81.....21.50
PAM 2; uses '27, 2-71, '80.....17.95

CLASS B MODULATION EQUIPMENT

ARSCO-Franklin Class B transformers, '46 SA to 2-46 Class B Mod. to 5000 ohm load, NEW LOW PRICE, per pair.....\$ 5.25
ARSCO-Franklin Class B transformers, 2-46 SA to 2-03A Class B Mod. to 2-03A or 2-52 modulated stage; secondary of output transformer carries DC plate current to modulated stage; frequency characteristic down 2 DB at 40 cycles, up 1/2 DB at 8000 cycles; per pair.....15.00
ARSCO-Franklin Class B transformers for ALL-PURPOSE 56 MC STATION, couple '49 SA to 2-49 Class B modulator to 5000 ohm load; per pair.....3.80
ARSCO-Franklin special plate transformer, low regulation for Class B work, 415-0-415 v.; 3-2 1/2 v. fl. windings, SPECIAL at.....5.50
ARSCO-Franklin special Class B filterchoke, 20 hy., 200 ma., 50 ohms.....2.10

INCLUDE POSTAGE WITH ALL ORDERS AND 20% DEPOSIT AGAINST C.O.D. SHIPMENTS

OPEN
EVENINGS

NEW NATIONAL FB-7 SUPER-HET
7-Tube Amateur-type Short-Wave Super, easily converted to Single-Signal. Uses '56, '57, 2-58, '59, 2-24. Has TRF for image suppression, two high-gain IF stages. Compact—measures 11 1/2" x 12"; all controls and tuning chart on panel—AND the coils plug in from front of panel. This is A receiver. LOWEST PRICES IN THE COUNTRY. WRITE FOR QUOTATIONS.

Write for FREE
HAM Sheet

WE CARRY EVERYTHING FOR THE HAM IN STOCK

COME AND VISIT US

MORE FOREIGN TRADE SOLICITED

We also carry a tremendous stock of used parts, etc. Write in on special requirements. What have you for sale or trade?

UNCLE DAVE'S RADIO SHACK

356 BROADWAY

Long Distance Phone 4-5746

ALBANY, NEW YORK

Tell 'Em You Saw It in the Radio Amateur Call Book Magazine